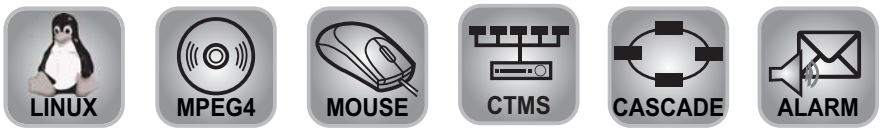
Operating Manual

- Cascade Communication
- Multi Viewing S/W (CTMS)
- System Controller
- Mouse/Remote Controller
- Multi-language
- Recovery CD
- Extended HDD Storage



Before installing and using the DVR, please read this manual carefully.
Besure to keep it handy for later reference.

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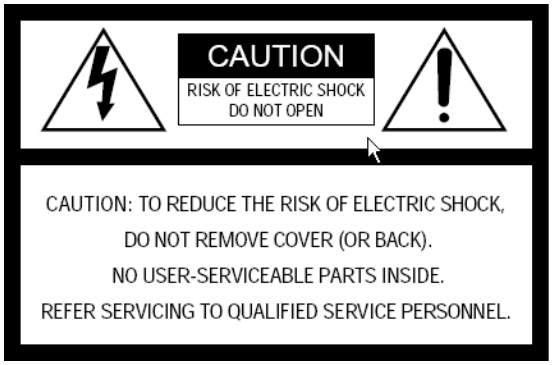

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Discard used batteries according to the manufacture's instructions.

THIS PRODUCT HAS MULTIPLE-RATED VOLTAGES.
ADJUST POWER INPUT SELECTOR SWITCH PROPERLY ON REAR OF UNIT BEFORE CONNECTING TO THE POWER SUPPLY.

IMPORTANT
The only way to disconnect power completely is to unplug the power cord.
Make sure at least one end of the power cord is within easy reach so that you can unplug the computer when you need to

For U.S.A

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not use near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other.
A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the points where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-overs.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING: To prevent fire or electric shock hazard, do not expose this appliance to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

PRECAUTION

System Controller
It is possible to control DVRs and cameras with PTX2000. (Live, Search and Setup)

Remote Operation
● Cascade Communication
It is possible to control the 4 slave DVRs through the master DVR without LAN or internet.

● Web Viewer / Client / CTMS
It is possible to operate this DVR connected to a LAN (Local Area Network) or the Internet using a web viewer, client S/W (1:1), CTMS S/W (1:N).

Various Search
It supports normal, event and quick search.
Normal Search – Date / Time / Camera
Event Search – Motion / Sensor

Various Recording Functions
● Scheduled recording
It is possible to perform recording automatically at a scheduled time on a designated day of a week. Schedules can be set on each camera.

● Emergency Recording
In case of emergency, emergency recording will be given a higher priority than other recording modes by operating an external switch.

● Event Recording
At an event occurrence such as when an alarm signal is supplied, recording mode (quality and recording rate) can be changed to high quality to record pictures
.
● Motion Detection Recording (VMD)
It is possible to start recording automatically when motion is detected in a shooting area.

Security Function and Reliability
● User Authentication
Authentication function (registration of ID and password) restricts users available functions to be operated.

● Bad Sector Protection
If a hard disk has bad sectors, it marks the bad sectors and skips it.

Various Archiving Functions
It supports built-in DVD backup on DVR and the various archiving like the below.
DVR – Still image save, Data Backup.
Backup Viewer – Still image save, AVI save.
Client, CTMS – Still image save, AVI save, Print and Remote Backup.

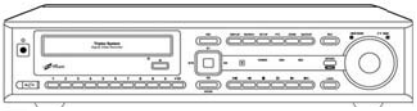
Extended Hard Disk Capacity (IEEE1394)
It is possible to extend the HDD capacity to 4 Tera byte using TERA 1500A.
Tera 1500A (6*500GB) + Bulit-In HDD (2*500GB)

Multi Language
Multilanguage Support
(English, Spanish Portuguese, Chinese and Korean)

FEATURES

COMPONENT

DVR package contains the main body and the following accessories.



NX 5009 / 5016 / 6016

NX 5004

Remote Controller

Remote Controller

User Manual

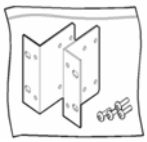
User Manual

Power Cord

Power Cord

Program CD

Program CD



Rack Mount & Screw

HDD Fixing Rubber & screw

HDD Fixing Rubber & Screw

COMPONENT

FRONT VIEW

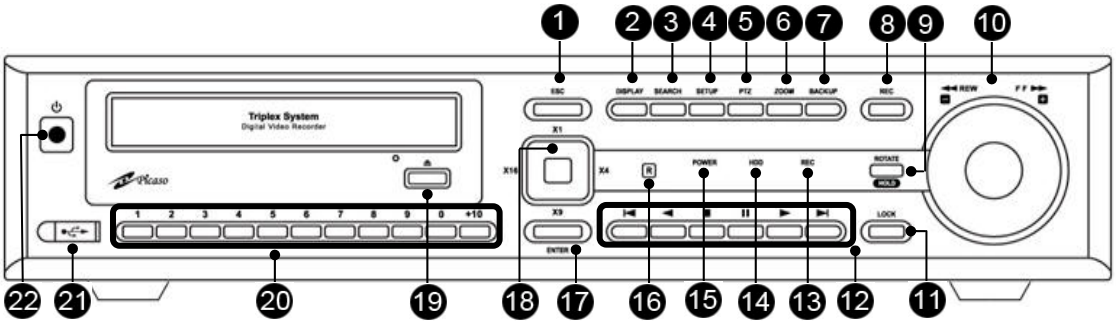


Figure 1. Front View (NX 5009, 5016, 6016)

1. ESC Button
Step back to the previous status.
Go to the Display menu.

2. Display Button
Go to the Display menu.

3. Search Button
Go to the Search menu.

4. Setup Button
Go to the Setup menu.

5. PTZ Button
Go to the Pan/Tilt menu.

6. Zoom Button
Zoom In/Out at 1CH screen division.

7. Backup Button
Go to the Backup menu.

8. REC Button
Record all cameras manually for emergency.

9. Hold/Rotate Button
Hold the search speed with Jog & Shuttle.
Rotate the camera division in order.

10. Jog Dial / Shuttle Ring
Play and reverse frame by frame during playback.
Fast forward and rewind during playback.

11. Lock Button
Lock/Unlock the DVR.

12. Playback Button
Start ⏮ - Go to the oldest data.
Reverse ◀ - Reverse.
Stop ■ - Stop.
Pause ⏸ - Pause.
Play ▶ - Play.
- Go to the Quick Search mode.
End ⏭ - Go to the latest data.

13. REC LED
Light up when Manual recording is ON.

14. HDD LED
Light up when built-in HDD is working.

15. Power LED
Light up when power is ON.

16. Remote Controller Receiver LED
Face the remote controller to the receiver for ID setting.

17. Enter Button
Determine the setting value.

18. Direction / Camera Division Button
Move the cursor on the menu.
Change a camera division.
UP : 1CH division
Right : 4CH division
Down : 9CH division
Left : 16CH division

19. CD/DVD Eject Button

20. Camera Selection Button
Show a camera image. (1CH division)

21. USB Port (USB 1.1)
Plug USB memory stick for Upgrade.
And PNG file save during playback.

22. Power Button
Turn ON/OFF.

FRONT VIEW

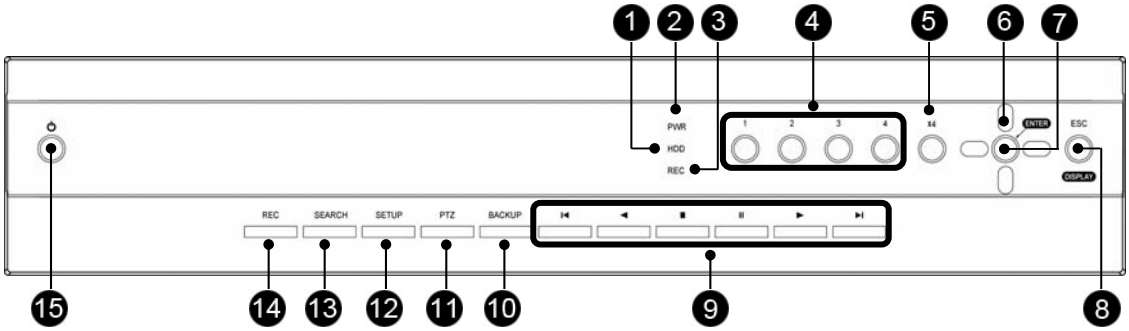


Figure 2. Front View (NX 5004)

1. HDD LED
Light up when built-in HDD is working.

2. Power LED
Light up when power is ON.

3. REC LED
Light up when Manual recording is ON.

4. Camera Selection Button
Show a camera image. (1CH division)

5. 4CH Division Button
Show a 4CH screen division.

6. Direction / Camera Division Button
Move the cursor on the menu.
Change a camera division.
UP : 1CH Division
Right : 4CH Division
Down :
Left :

7. Enter Button
Determine the setting values.

8. ESC (Display) Button
Step back to the previous status.
Go to the Display menu.

9. Playback Button
Start ⏮ - Go to the oldest data.
Reverse ◀ - Reverse.
Stop ■ - Stop.
Pause ⏸ - Pause.
Play ▶ - Play.
- Go to the Quick Search mode.
End ⏭ - Go to the latest data.

10. Backup Button
Go to the Backup menu.

11. PTZ Button
Go to the Pan/Tilt menu.

12. Setup Button
Go to the Setup menu.

13. Search Button
Go to the Search menu.

14. REC Button
Record all cameras manually for emergency.

15. Power Button
Turn ON/OFF.

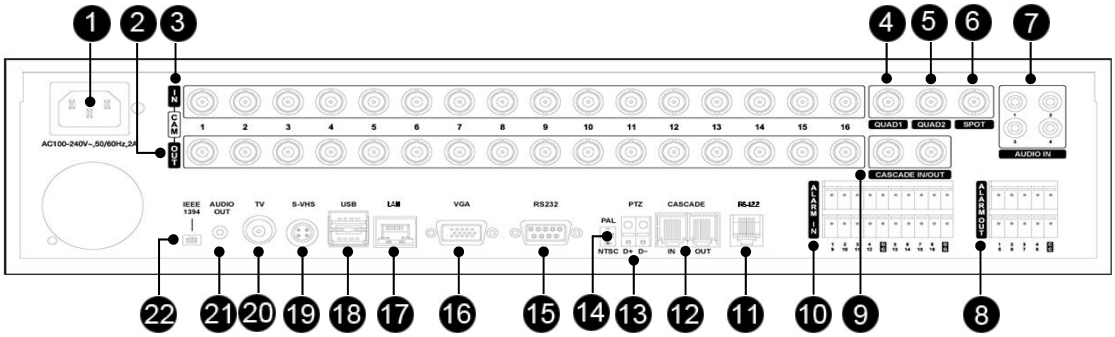


Figure 3. Rear View (NX 5009, 5016, 6016)

1. Power Socket
Insert a power cord here securely.

2. Camera Out (Loop Out)
Supports video signals looped through the video input connectors.

3. Camera In
Connect a camera to the BNC connector.

4. Quad1
Show a Fixed, Rotation screen division and a slave DVR on the quad 1 monitor.

5. Quad2
Show a Fixed and Rotation screen division on the quad 2 monitor.

6. Spot
Rotate 1ch screen division on the spot monitor in order.

7. Audio In (1 ~ 4)
Input audio signal supplied from a microphone amplifier.

8. ALARM OUT
Connect an alarm device such as a buzzer and a lamp.

9. Cascade In/Out (BNC)
Image transmission when using with other DVRs for Cascade.

10. ALARM IN
Connect an external device such as a sensor and a door switch.

11. RS-422
Connect a Keyboard.(PTX2000)

12. Cascade In/Out (RJ-11)
Command signal transmission when using with other DVRs for Cascade.

13. PTZ
Connect a RS-485 compatible camera for PTZ control.

14. PAL/NTSC
Choose a PAL/NTSC video signal.

15. RS-232C (SERIAL)
Connect an external device that supports the D-Sub 9-pin connector when controlling with the dvr.

16. VGA
Connect a VGA monitor.

17. LAN (10/100BASE-T)
Connect a network device compatible with 10BASE-T or 100BASE-Tx.

18. USB (1.1)
Connect a USB memory stick for Upgrade and image save.

19. S-VHS
Connect a monitor to S-VHS connector.

20. TV
Connect a monitor to BNC connector.

21. Audio Out
Connect a speaker for audio out.

22. IEEE1394
Connect an external device like CD/DVD writing device.

REAR VIEW

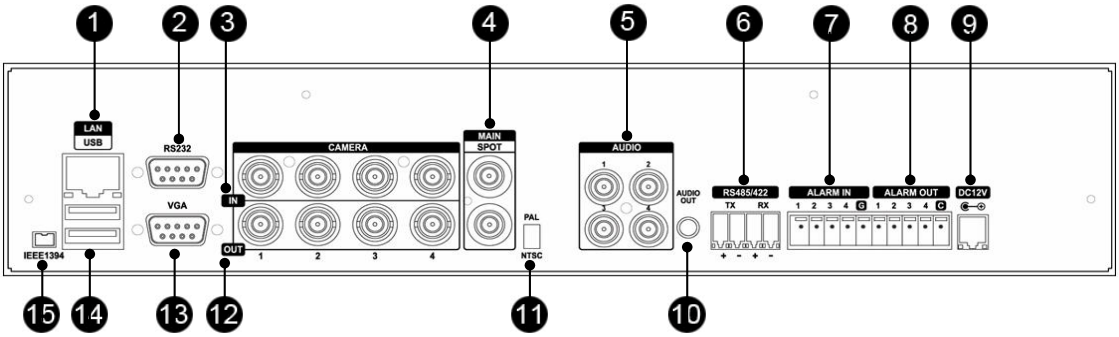


Figure 4. Rear View (NX 5004)

1. LAN (10/100BASE-T)
Connect a network device compatible with 10BASE-T or 100BASE-Tx.

2. RS-232C (SERIAL)
Connect an external device that supports the D-Sub 9-pin connector when controlling with the dvr.

3. Camera In
Connect a camera to the BNC connector.

4. Main (TV)
Connect a monitor to BNC connector.

5. Audio In (1 ~ 4)
Input audio signal supplied from a microphone amplifier.

6. PTZ
Connect a RS-485 compatible camera for PTZ control.

7. ALARM IN
Connect an external device such as a sensor and a door switch.

8. ALARM OUT
Connect an alarm device such as a buzzer and a lamp.

9. DC12V
Insert a power cord here securely.

10. Audio Out
Connect a speaker for audio out.

11. PAL/NTSC
Choose a PAL/NTSC video signal.

12. Camera Out (Loop Out)
Supports video signals looped through the video input connectors

13. VGA
Connect a VGA monitor.

14. USB (1.1)
Connect a USB memory stick for Upgrade and image save.

15. IEEE1394
Connect an external device like CD/DVD writing device.

REAR VIEW

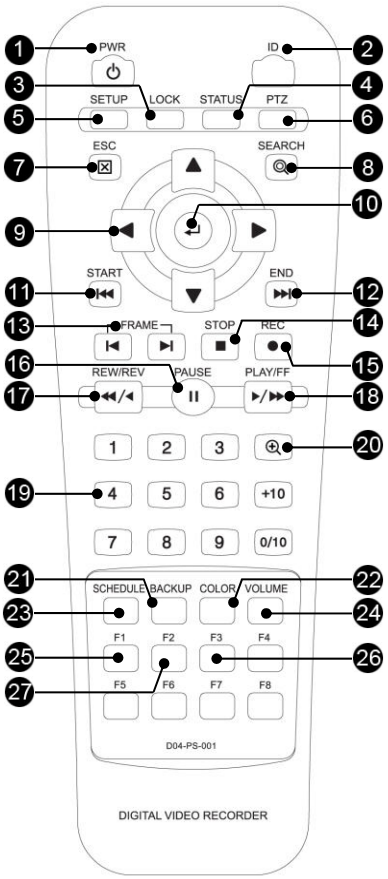


Figure 5. Remote Controller

1. Power Button
Turn ON/OFF.

2. ID Button
Set the DVR ID.

3. Lock Button
Lock/Unlock the DVR.

4. Status Button
Show the DVR information in order.
(H/W, S/W version, camera name)

5. Setup Button
Go to the Setup menu.

6. PTZ Button
Go to the Pan/Tilt menu.

7. ESC Button
Step back to the previous status.
Go to the Display menu.

8. Search Button
Go to the Search menu.

9. Direction / Camera Division Button
Move the cursor on the menu.
Change a camera division.
UP : 1CH division
Right : 4CH division
Down : 9CH division
Left : 16CH division

10. Enter Button
Determine the setting value.

11. 12. Start / End Button
Start / End ⏮ ⏭ - Go to the oldest / latest data.
Move between the submenus at setup mode.

13. 14. Frame / Stop Button
Frame ⏮⏭ - Go to the previous / next frame.
Stop ■ - Stop.

15. REC Button
Record all cameras manually for emergency.

16. 17. 18. Pause, Rew/Rev, Play/FF Button
Pause ⏸ - Pause.
Rew/Rev ◀◀ /◀ - Reverse / Fast rewind.
Play/FF ▶/ ▶▶ - Play / Fast forward.
Go to the Quick Search mode.

19. Camera Selection Button
Show a camera. (1CH division)

20. Zoom Button
Zoom In/Out at 1CH screen division.

21. Backup Button
Go to the Backup menu.

22. Color Button
Adjust the color of the camera.

23. Schedule Button
Go to the schedule menu.

20. Volume Button
Adjust the audio volume at 1CH screen division.

21. F1 Button
Control the slave DVR in master monitor.

22. F2 Button (Cascade Control)
Control the slave monitor.

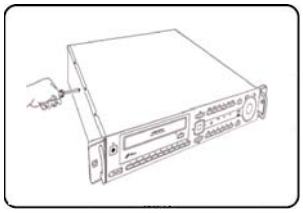
23. F3 Button
Show the other slave DVRs in order.

REMOTE CONTROLLER

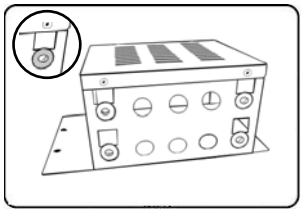
■ HDD Connection

Improper installation may disturb HDD recognition or normal product operation

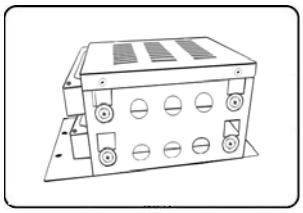
1. Remove the screws on both sides and back to detach the product cover.



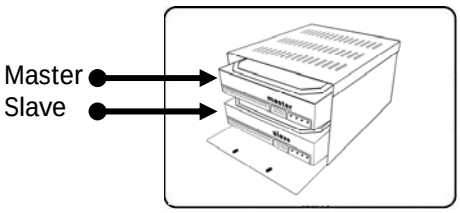
2. Remove the screw of the HDD bracket from DVR and fix the rubber into the HDD fixing hole.



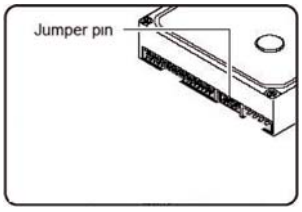
3. Place the HDD into the HDD bracket and fix it tightly with the HDD screws.



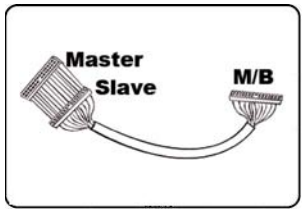
4. Set jumper pin setting to the HDD like the below figure.

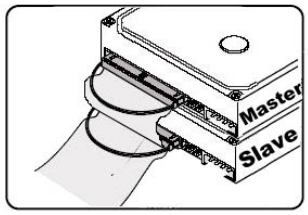


Jumper pin setting way is different from the HDD manufacturer.

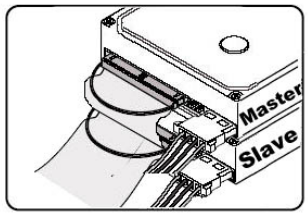


5. Connect the IDE cable to the HDDs.
Please make sure the IDE cable is connected to the HDD right as shown in the below.





6. Connect the power supply cable to the HDD.



7. Screw the HDD bracket to the DVR.

8. Check the connector, wiring, and cable fixing condition inside the product and close the cover.

9. After adding the hard disk drive, format the added HDD at A/S mode.

NOTE:
When one HDD is used, set the HDD as master using the jumper pin and connect the HDD as master using the IDE cable.

CONNECTION

■ Basic Connection

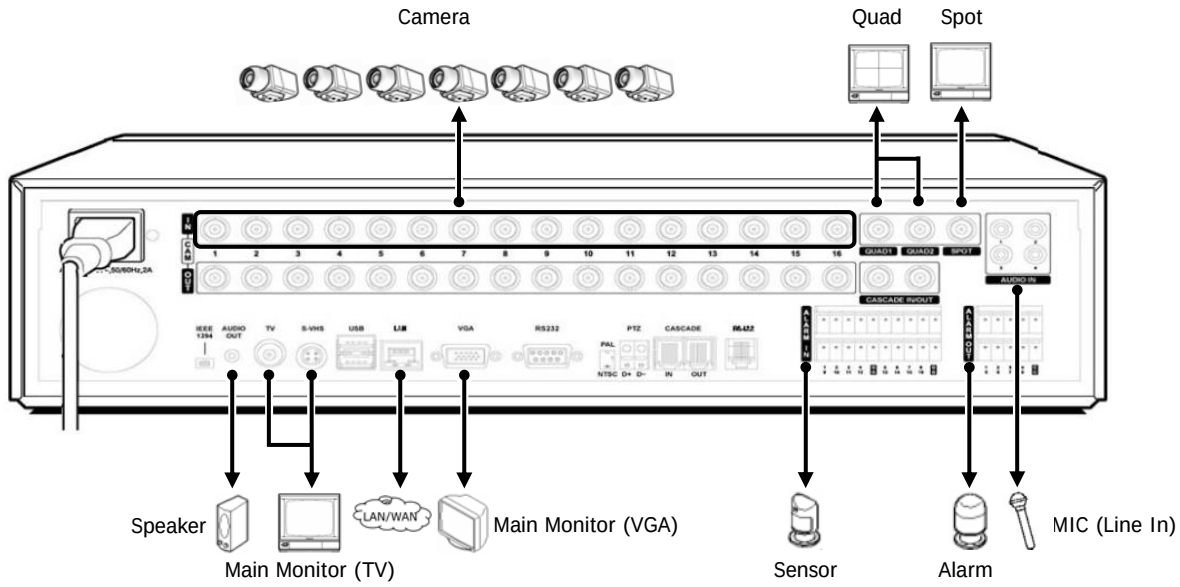


Figure 6. Basic Connection

■ HDD Storage Connection

Connect the TERA1500A HDD storage through the back port of NX 5009 / 5016 / 6016. We'd like to make sure that the products should be off before connecting them.
Please refer to the user manual of TERA1500A for more detailed information.

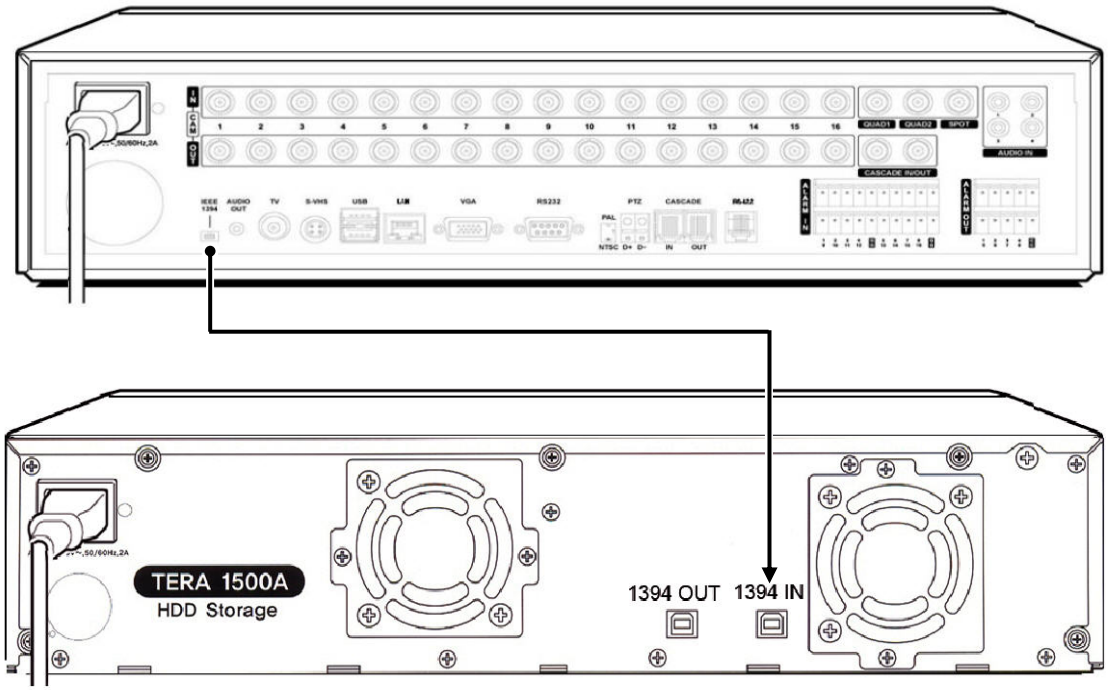


Figure 7. Tera1500A Connection

■ System Controller Connection

There are two RJ-11 ports on the rear of PTX2000.(Slave / Master) Connects a keyboard cable to the Master.

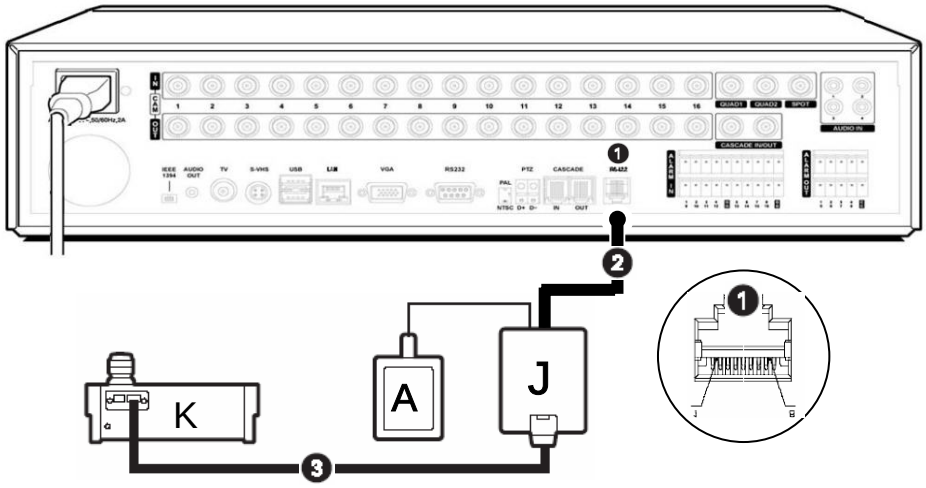


Figure 8. System Controller Connection with one keypad

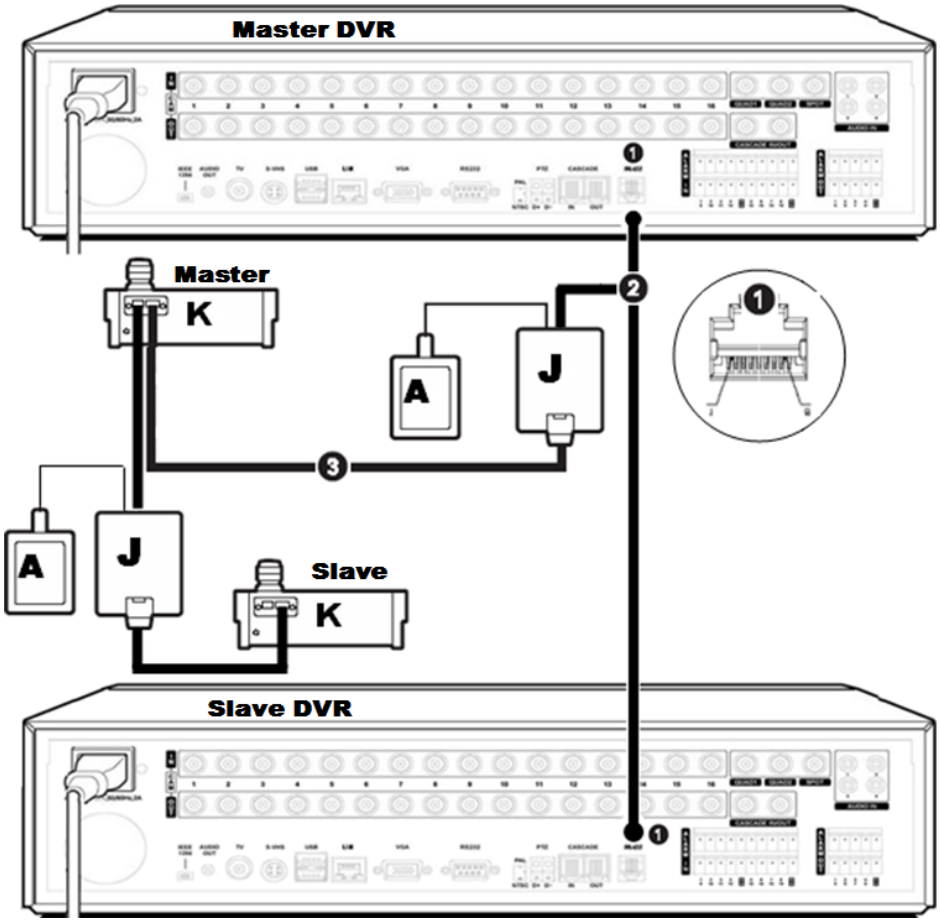


Figure 9. System Controller Connection with two keypads

Slave / Master

Figure 10. Rear View of PTX2000

Parts Description

Item	Part	Description
❶	RJ-11	RJ-11 port.
❷	Data Cable	A cable that connects a Junction Box to a DVR.
❸	Keyboard Cable	A cable that connects a PTX2000 to a Junction Box. (RJ-11)
J	Junction Box	-Data connectivity between a DVR and a PTX2000. -Power connectivity between a 12VDC adaptor and a PTX2000.
K	PTX2000	Keyboard.
A	Adaptor	A 12VDC adaptor that powers the PTX2000.

CONNECTION

● Pin Assignment

The below is the description of the Pin Assignment for the RJ-11 port and the Junction box.

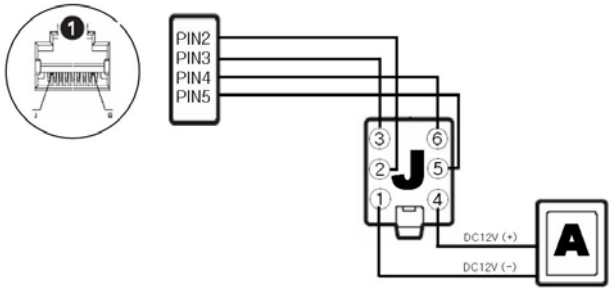


Figure 11. Junction Box & RJ-11 Connection

Pin	Signal	Pin	Signal
1	DC12V (–)	4	DC12V (+)
2	TX –	5	RX +
3	TX +	6	RX –

Figure 13. Pin Assignment of Junction Box

Pin	Signal	Pin	Signal
1	Not used	4	TX –
2	RX –	5	TX +
3	RX +	6	Not used

Figure 12. Pin Assignment of RJ-11

■ Network Connection

The NX Series DVR supports remote viewing and administration in client-server and peer-to-peer configurations. The NX DVR is compatible with the TCP/IP protocol and Ethernet (10/100BaseT) network connection. Consult your network administrator before installing the DVR to avoid possible network conflicts.

For TCP/IP access, connect the NX DVR to a 10/100 Mbps, switched Ethernet network. Use standard Cat5 or better UTP cable with RJ-45 connectors.

● To configure the NX DVR for network access:

1. Connect one end of the UTP cable to the network port on the back panel of the NX DVR as shown in the Figure.

2. Connect the other end of the UTP cable to an available port on a standard Ethernet switch.

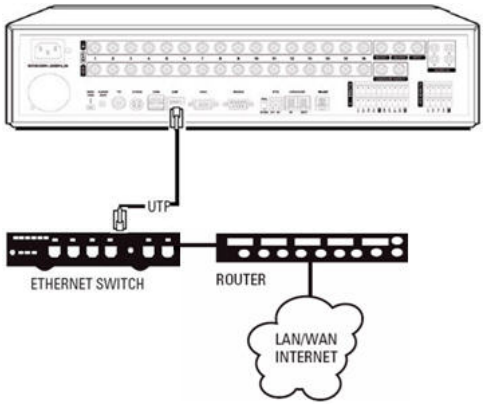


Figure 14. LAN/WAN Connection

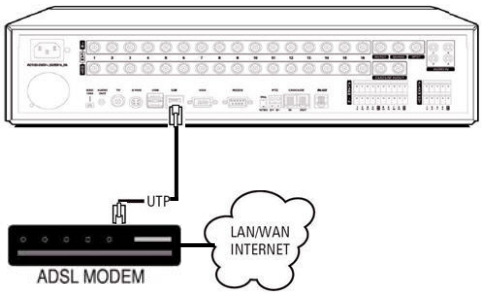


Figure 15. ADSL Connection

■ Alarm Connection

The NX series has either 4 or 8 alarms (relay outputs), depending on your system's configuration. Each output is programmed to function as either a normally open or normally closed circuit. A signal from a relay output will operate the device connected to the output. The maximum relay power rating is 24VDC, 1.25A, 30W.

● To wire an alarm output:

1. Connect one wire from the device to one of the alarm output terminals 1 through 8.

Alarm outputs don't have to correspond numerically to alarm inputs.
All alarm input and alarm output actions can be linked through programming.

2. Connect a second wire from the relay device to a GND terminal.

3. Refer to the user manual for information on how to program alarm outputs.

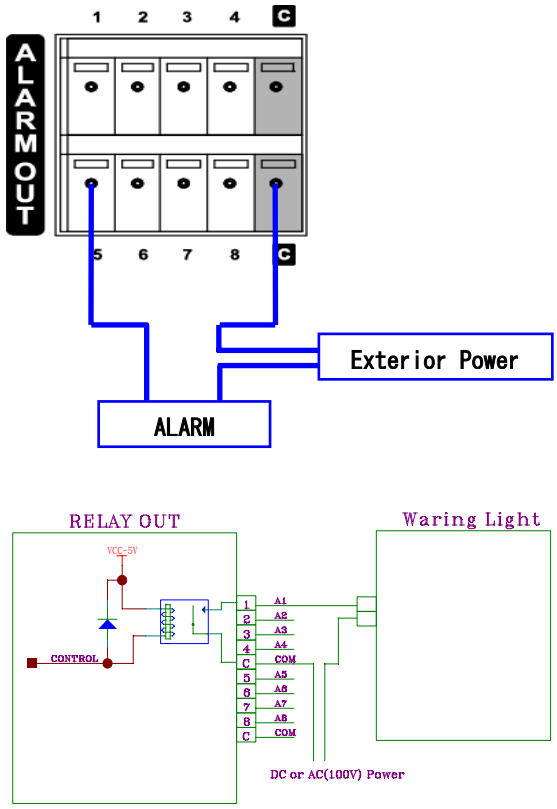


Figure 16. Alarm Connection

■ Sensor Connection

The NX series has either 8 or 16 dry contact sensors (alarm inputs), depending on your system's configuration. Each input is programmed to function as either a normally open or normally closed circuit.

● To wire an alarm input:

1. Connect one wire from the source device to one of the sensor input terminals 1 through 16.

2. Connect a second wire from the source device to a GND terminal.

3. Refer to the user manual for information on how to program the alarm inputs.

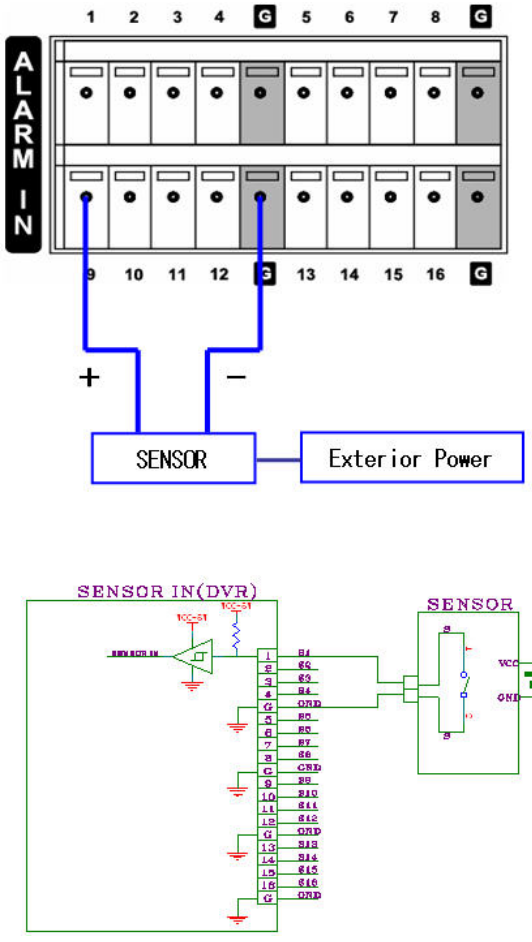
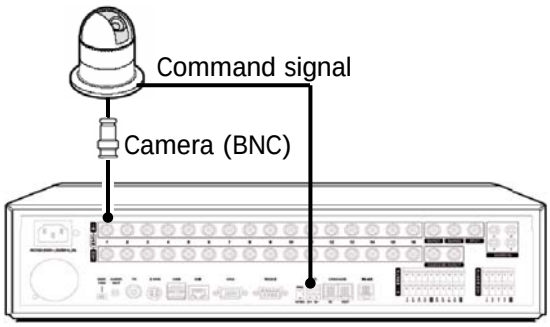


Figure 17. Sensor Connection

■ PTZ Connection

● NX 5009 / 5016 / 6016

Connect RS-485 Device through the back port of NX 5009 / 5016 / 6016.
You can install and control the PTZ device supporting RS-485 communication.



The below is the detailed PTZ connection between DVR and camera.

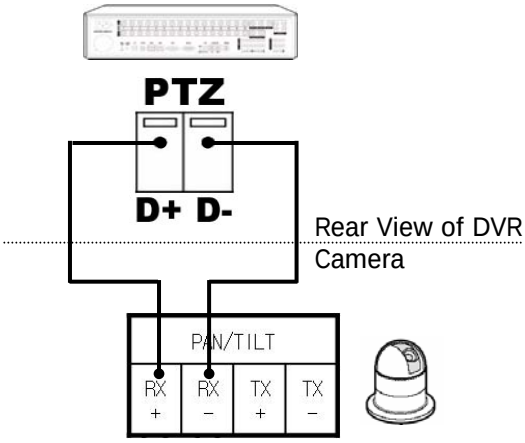
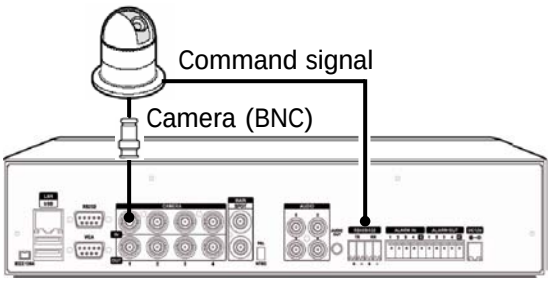


Figure 18. PTZ Connection (NX 5009 / 5016 / 6016)

● NX 5004

Connect RS-485 / 422 Device through the back port of NX 5004.
You can install and control the PTZ device supporting RS-485 / 422 communication.



The below is the detailed PTZ connection between DVR and camera.

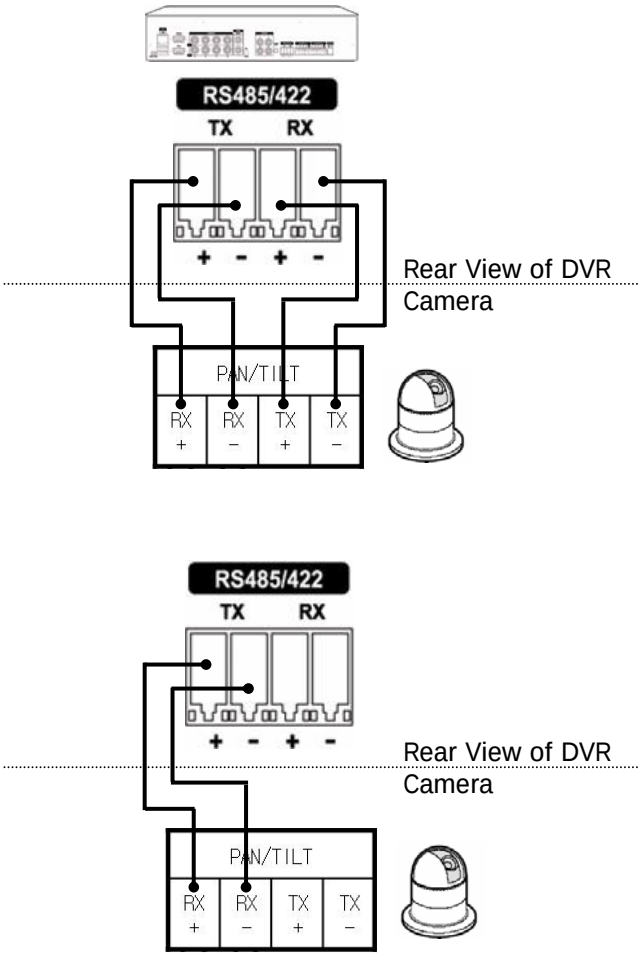
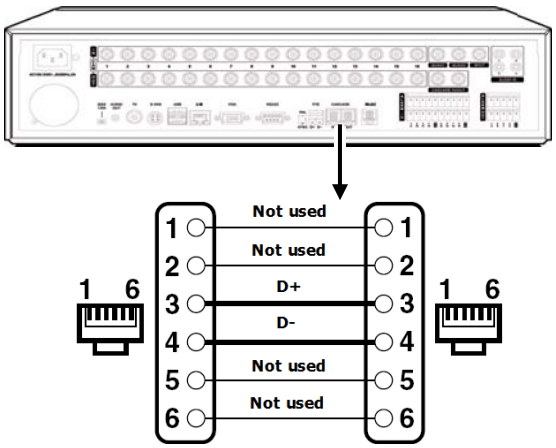


Figure 19. PTZ Connection (NX 5004)

■ Cascade Connection Example 1

Use the RS-485 (RJ-11) connector to connect a DVR to a DVR.

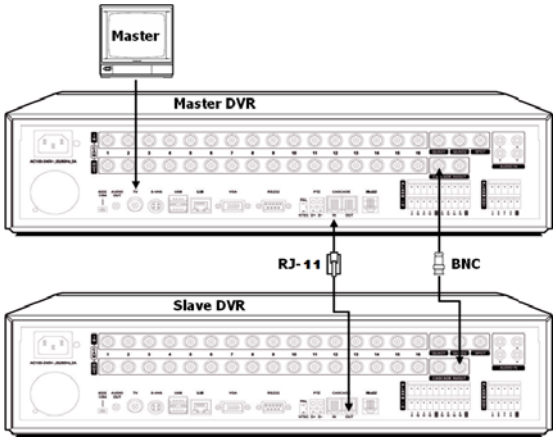


Pin	signal	Pin	signal
1	Not used	4	D-
2	Not used	5	Not used
3	D+	6	Not used

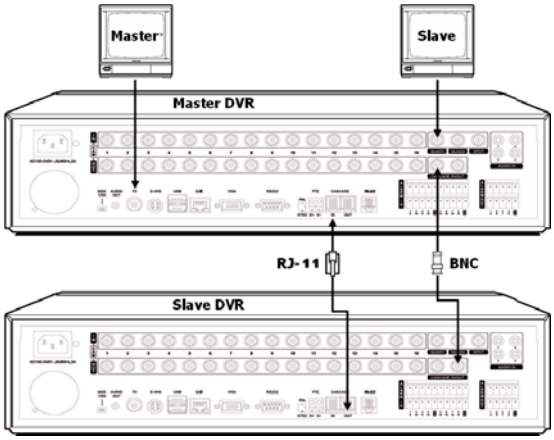
Figure 20. Pin Assignment (RS-485)

For the cascade connection, connect the CASCADE IN connector and the CASCADE OUT connector on the rear panel of each NX DVR as below. (NX 5009 / 5016 / 6016)
When connecting the DVR in the cascade connection, refer to the Cascade setting on the SETUP MENU.
Refer to the cascade control.

● Cascade connection using one monitor at Master DVR



● Cascade connection using two monitors at Master DVR



■ Cascade Connection Example 2

Up to five units can be connected.
For the cascade connection, connect the CASCADE IN connector and the CASCADE OUT connector on the rear panel of each NX DVR as below. (NX 5009 / 5016 / 6016)
When connecting the DVR in the cascade connection, refer to the Cascade setting on the SETUP MENU.
Refer to the cascade control.

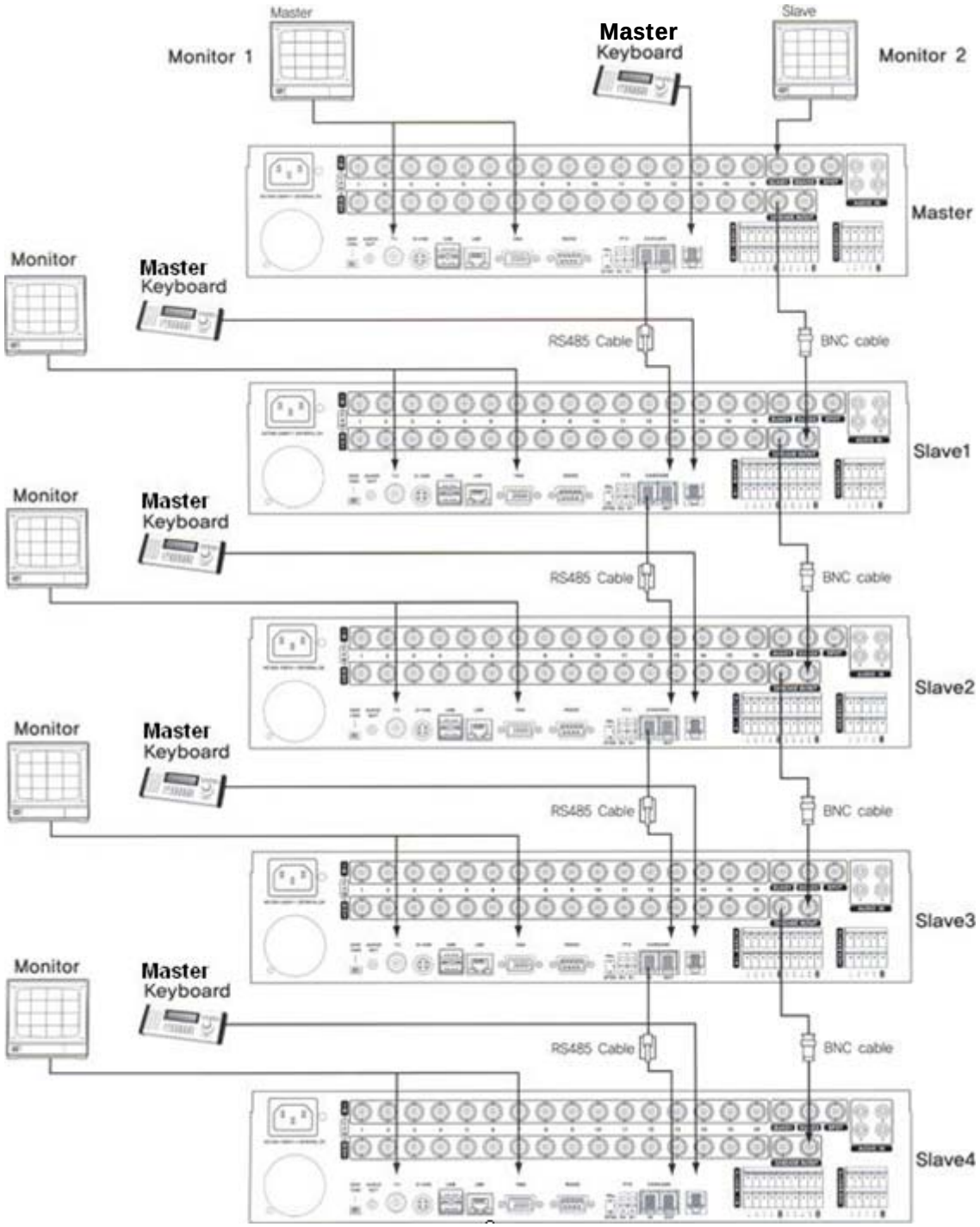


Figure 21. Cascade Connection

■ How to move the cursor.

Basic setting way in the manual is based on the remote controller.

1. Move the cursor using the direction button.

Direction

UP
DOWN
RRIGHT
LEFT

■ How to change the setting value.

1. Press the “Enter” button

Enter

2. Move the cursor to “Quality”.

Direction

RECORD
RECORD
SCHEDULE
HOLIDAY
CH SIZE FPS QUALITY PRE-REC POST-REC
1 720x480 1.88 BEST 3 SEC NONE
2 720x480 1.88 BEST 3 SEC NONE
3 720x480 1.88 BEST 3 SEC NONE
4 720x480 1.88 BEST 3 SEC NONE
5 720x480 1.88 BEST 3 SEC NONE
6 720x480 1.88 BEST 3 SEC NONE
7 720x480 1.88 BEST 3 SEC NONE
8 720x480 1.88 BEST 3 SEC NONE
9 720x480 1.88 BEST 3 SEC NONE
ESC - Exit
NEXT

3. Press the “Enter” button.

Enter

4. Select the setting value using the cursor.

Direction

RECORD
RECORD
SCHEDULE
HOLIDAY
CH SIZE FPS QUALITY PRE-REC POST-REC
1 720x480 1.88 BEST 3 SEC NONE
2 720x480 1.88 MEDIUM 3 SEC NONE
3 720x480 1.88 3 SEC NONE
4 720x480 1.88 LOWEST 3 SEC NONE
5 720x480 1.88 BEST 3 SEC NONE
6 720x480 1.88 BEST 3 SEC NONE
7 720x480 1.88 BEST 3 SEC NONE
8 720x480 1.88 BEST 3 SEC NONE
9 720x480 1.88 BEST 3 SEC NONE
ESC - Exit
NEXT

5. Press the “Enter” button.

The setting value is changed like the below.

Enter

RECORD
RECORD
SCHEDULE
HOLIDAY
CH SIZE FPS QUALITY PRE-REC POST-REC
1 720x480 1.88 MEDIUM 3 SEC NONE
2 720x480 1.88 MEDIUM 3 SEC NONE
3 720x480 1.88 MEDIUM 3 SEC NONE
4 720x480 1.88 MEDIUM 3 SEC NONE
5 720x480 1.88 MEDIUM 3 SEC NONE
6 720x480 1.88 MEDIUM 3 SEC NONE
7 720x480 1.88 MEDIUM 3 SEC NONE
8 720x480 1.88 MEDIUM 3 SEC NONE
9 720x480 1.88 MEDIUM 3 SEC NONE
ESC - Exit
NEXT

■ How to move to the submenu at the “SETUP” MODE.

1. Press the “Start” or “End” button.

The cursor will be moved like the below.

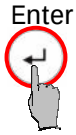
START END

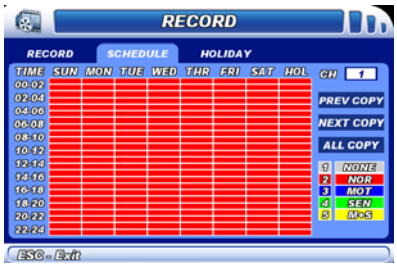
RECORD
RECORD
SCHEDULE
HOLIDAY
CH SIZE FPS QUALITY PRE-REC POST-REC
1 720x480 1.88 BEST 3 SEC NONE
2 720x480 1.88 BEST 3 SEC NONE
3 720x480 1.88 BEST 3 SEC NONE
4 720x480 1.88 BEST 3 SEC NONE
5 720x480 1.88 BEST 3 SEC NONE
6 720x480 1.88 BEST 3 SEC NONE
7 720x480 1.88 BEST 3 SEC NONE
8 720x480 1.88 BEST 3 SEC NONE
9 720x480 1.88 BEST 3 SEC NONE
Select size is must be same size for all channel
NEXT

2. Press the “Enter” button.

The “SCHEDULE” menu will show up.

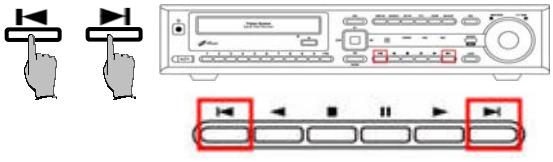
Enter





NOTE:

To move the submenu on front panel of DVR, use the following button.



SETTING WAY

■ How to see the next page.

1. Press the “SETUP” button.
The SETUP MENU will be displayed.

2. Press the “Enter” button.
The “Record” menu will be displayed. It just shows the information of camera no. 1~9.

RECORD
RECORD
SCHEDULE
HOLIDAY
CH SIZE FPS QUALITY PRE-REC POST-REC
1 720x480 1.88 BEST 3 SEC NONE
2 720x480 1.88 BEST 3 SEC NONE
3 720x480 1.88 BEST 3 SEC NONE
4 720x480 1.88 BEST 3 SEC NONE
5 720x480 1.88 BEST 3 SEC NONE
6 720x480 1.88 BEST 3 SEC NONE
7 720x480 1.88 BEST 3 SEC NONE
8 720x480 1.88 BEST 3 SEC NONE
9 720x480 1.88 BEST 3 SEC NONE
Select size is must be same size for all channel
NEXT

3. Press the “Down” direction button continuously.
Show the other camera information.

RECORD
RECORD
SCHEDULE
HOLIDAY
CH SIZE FPS QUALITY PRE-REC POST-REC
10 360x240 7.5 MEDIUM 3 SEC NONE
11 360x240 7.5 MEDIUM 3 SEC NONE
12 360x240 7.5 MEDIUM 3 SEC NONE
13 360x240 7.5 MEDIUM 3 SEC NONE
14 360x240 7.5 MEDIUM 3 SEC NONE
15 360x240 7.5 MEDIUM 3 SEC NONE
16 360x240 7.5 MEDIUM 3 SEC NONE
Select size is must be same size for all channel
PREV

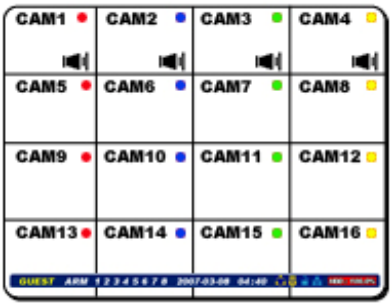
SETTING WAY

■ Normal Startup

1. Insert the “Power Plug” to an outlet

2. Turn the power button “ON”.

3. Show the “Loading……” for seconds and Display the live image.



■ Factory Startup

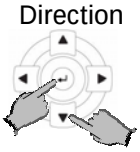
Boot up window will be only displayed on Factory default, recovery CD and replacing the master HDD.

1. Insert the “Power Plug” to an outlet.

2. Turn the power button “ON”.
Boot up Window will be displayed like the below.

3. Set the “Language”, “Time Zone”, and “Date/Time”.

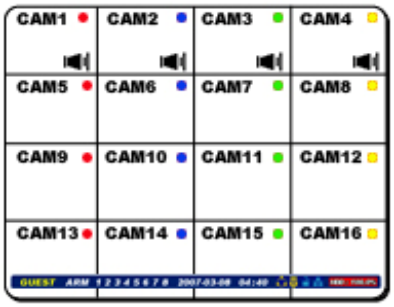
4. Move the cursor to “OK” and Press the “Enter” button.
The HDD format window will show up.



5. Format the HDD.
The below window will be only displayed on factory default, recovery CD and replacing HDD.

6. Move the cursor to “OK” and Press the “Enter” button.

7. Show the “Loading……” for seconds and Display the live image.



STARTUP

You should change the password immediately after logging in to the software for the first time. Follow the instructions below to change the NX DVR login password.

The below is the example to log in/out the “User1” level from the Guest level.

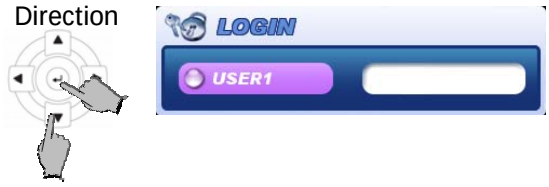
NOTE:
It is possible to log in / out at live mode.
Default P/W is “1111111”.

■ Log In

1. Press the “Enter” button.
The “Log In” window will be displayed.

2. Move the cursor to “Admin” and Press the “Enter” button.
User level selection window will be displayed.

3. Move the cursor to “User1” and Press the “Enter” button.
The below window will be displayed.



4. Move the cursor to “Input window” and Input the P/W of the selected user.
The selected user will be displayed on the information bar.

■ Log Out

1. Press the “Enter” button.
The “Log Out” window will be displayed.

2. Input the P/W of the selected user and Press the “Enter” button.

3. Guest (Default level) will be displayed on the information bar.

LOG IN/OUT

TIME ADJUSTMENT

It is recommended to check the time periodically and put the time right if it shows the wrong time.

1. Press the "SETUP" button.
The SETUP MENU will be displayed.

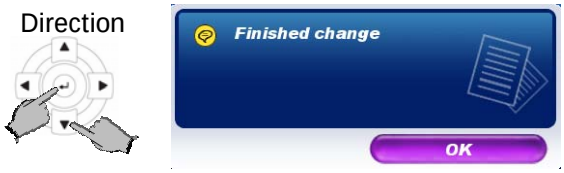
2. Press the "Setup" button once more and No.1, 2, 3.
The P/W input window will be displayed.

3. Input the "P/W" and then press the "Enter" button.
The A/S MENU will be displayed.

4. Move the cursor to "DATE & TIME" and Press the "Enter" button.
The "Date & Time" menu will be displayed.

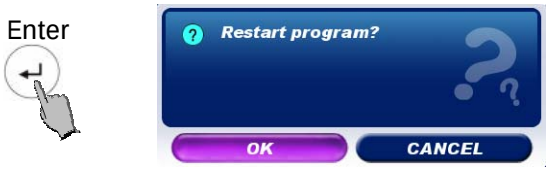
5. Set the "Time Zone" & "Date/Time"

6. Move the cursor to "OK" and Press the "Enter" button.
The below window will show up.

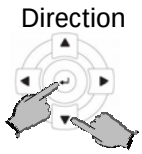


7. Press the "Enter" button.
The A/S MENU will be displayed.

8. Press the "ESC" button.
The below window will show up.



9. Move the cursor to "OK" and Press the "Enter" button.
DVR will restart.



NOTE:
The below procedure only happens when the changed new time is the older than the old time.

10. The below window will show up.
The below window is to reconfirm the changed time. Select "OK" to confirm the changed time.

11. Move the cursor to "OK" and press the "Enter" button.
The "Backup" menu will show up.

12. Press the "ESC" button to exit without Backup.

12-1. Refer to the backup.
Live image will be displayed and the changed date & time will be displayed on the information bar.

TIME ADJUSTMENT

■ ID Setting at DVR

The below procedure is the example setting of the user password and authority.

Example Setting
REMOCOM ID – “3”.

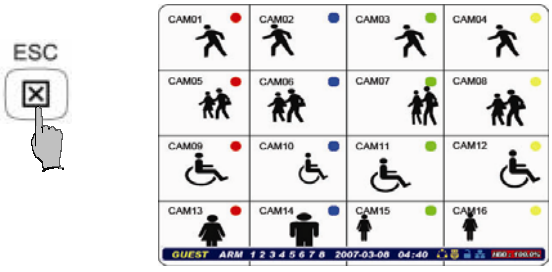
1. Press the “DISPLAY” or “ESC” button.
The DISPLAY MENU will be displayed.

2. Move the cursor to “MAINTENACNE” and Press the “Enter” button.
The “Maintenance” menu will be displayed.

3. Set the “REMOCON ID” as “3”.

4. Press the “ESC” button.
The DISPLAY MENU will be displayed.

5. Press the “ESC” button.
The live mode will be displayed.

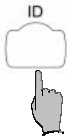


■ Remote Controller ID Setting

Set the remote controller ID as described below.

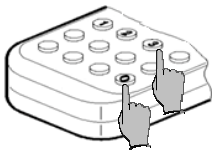
1. Face the remote controller to the IR receiver of DVR.

2. Holding the “ID” button of the remote controller.
Power LED will twinkle.



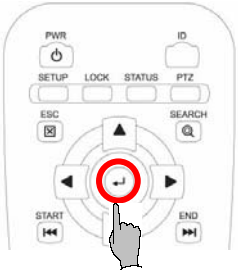
3. Press No. of the “REMOCON ID” you set on DVR.

Ex)



Press “0” and “3” to set an ID No. 3.

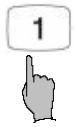
4. Press “Enter” button.
Power LED will stop twinkle.

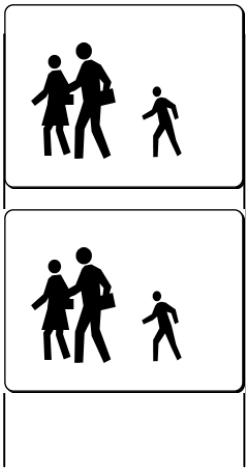


NOTE:
When “REMOCON ID” of DVR matches the remote controller ID, the POWER LED on the front stops twinkling.

■ Viewing a single screen image

1. Press a camera selection button.
The camera image appears as a single screen.

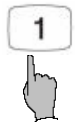


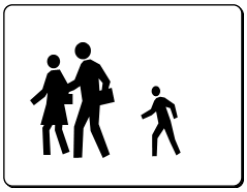


1CH Division

■ Enlarging an image

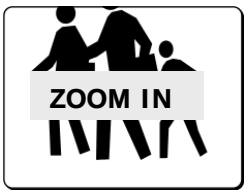
1. Press a camera selection button.
The camera image appears as a single screen.





2. Press the “ZOOM” button.
The image will be enlarged. Press the “ZOOM” button again for more enlarged image.

Zoom

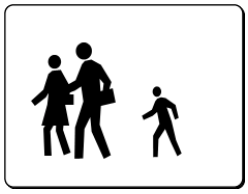


3. Press the “DIRECTION” button.
Move the enlarged image on screen.

Direction

4. Press “ZOOM” button again.
Return to the original image.

ESC

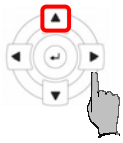


NOTE:
If you press other buttons while zooming is in progress, the zooming will be canceled.

■ Viewing multiple camera images

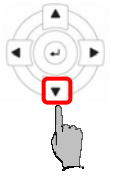
1. Press the “Camera Division” button.

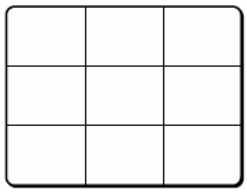
1 CH Division



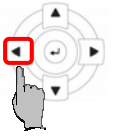
4 CH Division

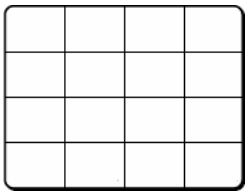
9CH Division





16CH Division





2. Press the “Camera Division” button again.
Show the camera division in order.
1CH Division (1, 2, 3, 4, 5 - - 13, 14, 15, 16)
4CH Division (1~4, 4~8, 9~16)
9CH Division (1~9, 10~16)

■ Switching the camera images.

Camera images will be switched automatically.

1. Press the “DISPLAY” or “ESC” button.
The DISPLAY MENU will be displayed.

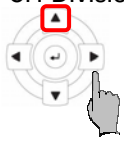
2. Move the cursor to “MAINTENACNE” and Press the “Enter” button.
The “Maintenance” menu will be displayed.

3. Set the “Live Display Rotate” to “ON” and “Display Rotate Time”.

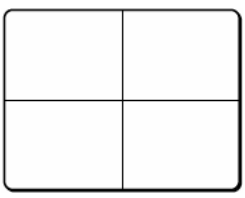
4. Press the “ESC” button to save and exit.

5. Press the “Camera Division” button.

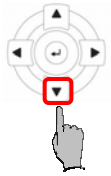
1 CH Division

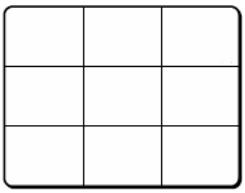


4 CH Division

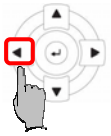


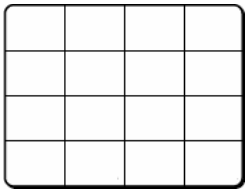
9CH Division





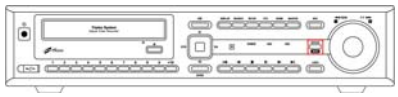
16CH Division





NOTE:
Press the “ROTATE” button on the front panel of DVR to sequence the camera division or stop it.

The “ROTATE” Button is only available at DVR, not remote controller.



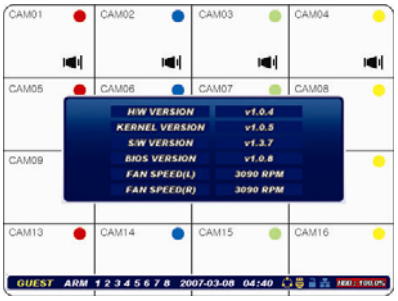
OPERATING DISPLAY

If you press the “status” button, the operating display will be changed as shown in the below in order.

1. Press the “STATUS” button.

STATUS

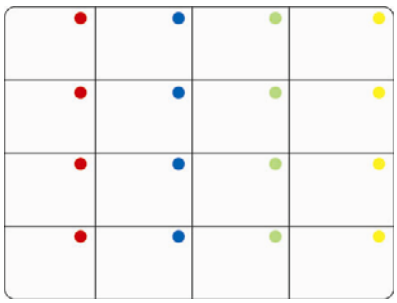
STATUS


HW VERSION v1.0.4
KERNEL VERSION v1.0.5
S/W VERSION v1.3.7
BIOS VERSION v1.0.8
FAN SPEED(L) 3090 RPM
FAN SPEED(R) 3090 RPM
GUEST ARM 1 2 3 4 5 6 7 8 2007-03-08 04:40

STATUS

STATUS

STATUS



- **Recording Status**

Normal Recording

Motion Recording

Sensor Recording

Motion + Sensor Recording

Audio Recording

- **Camera Name**

CAM01 – Show a camera name

- **Information Bar**

GUEST – Live mode available
ADMIN – All functions available
USER – Set a user authentication at the “user” menu of the “setup” mode.

ARM 12345678 – Show an alarm status.
White – OFF
Red – ON

2007-03-08 04:40 – Show a current time.

Show a cascade connection status.

Show a USB connection status.

Show a system lock / unlock status.

Show a network connection with client /ctms.

NOTE:
Blue - Not connected status.
Yellow - Connected status

- **H/W, S/W version**

- **Network Information**.

OPERATION DISPLAY

■ Audio Setting

Connect a speaker and a MIC (line in) to DVR. Refer to the figure of basic connection.

1. Press the “SETUP” button.
The SETUP MENU will be displayed.

2. Move the cursor to “CAMERA” and Press the “Enter” button.
The “Camera” menu will be displayed.

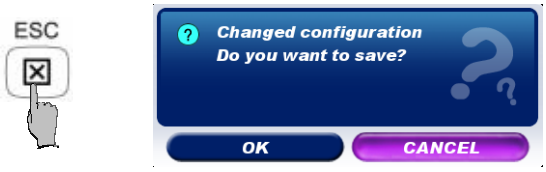
Direction
CAMERA
CAMERA
COLOR
CH ENABLE NAME AUDIO PTZ ID
1 ON CAM01 OFF NONE 1
2 ON CAM02 OFF NONE 2
3 ON CAM03 OFF NONE 3
4 ON CAM04 OFF NONE 4
5 ON CAM05 NONE 5
6 ON CAM06 NONE 6
7 ON CAM07 NONE 7
8 ON CAM08 NONE 8
9 ON CAM09 NONE 9
ESC - Exit

3. Set the “AUDIO” to “ON”.

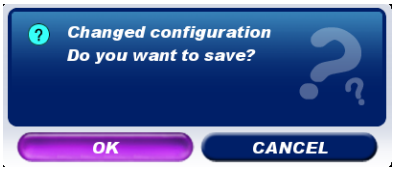
CAMERA
CAMERA
COLOR
CH ENABLE NAME AUDIO PTZ ID
1 ON CAM01 ON NONE 1
2 ON CAM02 ON NONE 2
3 ON CAM03 ON NONE 3
4 ON CAM04 ON NONE 4
5 ON CAM05 NONE 5
6 ON CAM06 NONE 6
7 ON CAM07 NONE 7
8 ON CAM08 NONE 8
9 ON CAM09 NONE 9
ESC - Exit

4. Press the “ESC” button.
The SETUP MENU will be displayed.

5. Press the “ESC” button again.
Save and exit window will show up.



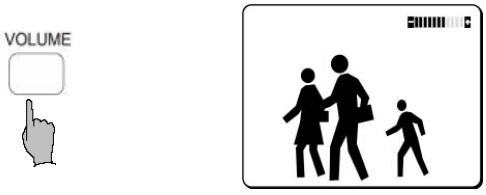
6. Move the cursor to “OK” and Press the “Enter” button.



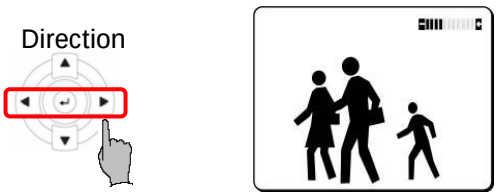
■ Listening Audio

1. Press a camera selection button.
The camera image appears as a single screen. Audio will be only available at camera no. 1~4.

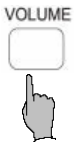
2. Press the “VOLUME” button.
The volume control bar will appear.

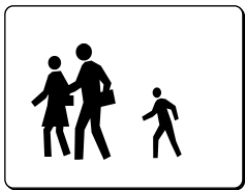


3. Press the “Left” or “Right” button.
Adjust the volume level.



4. Press the “VOLUME” button once more.
Volume control bar will disappear.



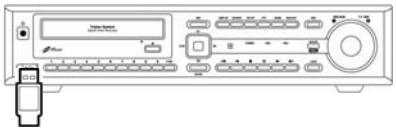


NOTE:
Volume control bar will disappear in a few seconds automatically.

AUDIO

If the USB stick is attached to DVR, the USB indicator in the information bar turns to yellow. Refer to the operating display.

1. Plug in the USB stick with the upgrade file to DVR.

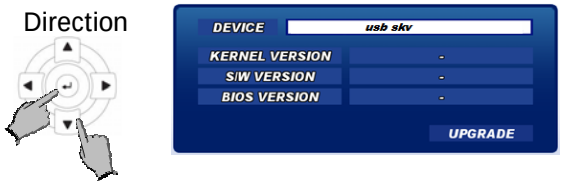


2. Press the "SETUP" button.
The SETUP MENU will be displayed.

3. Press the "Setup" button and No.1, 2, 3.
P/W window will be displayed.

4. Input the "P/W" and then Press the "Enter" button.
The A/S MENU will be displayed.

5. Move the cursor to "UPGRADE" and Press the "Enter" button.
Upgrade window will be displayed.



NOTE:
Check the version information.

6. Move the cursor to "Upgrade" and Press the "Enter" button.

7. DVR will restart.

NOTE:
After upgrading, please check the upgrade version at H/W, S/W version of the operating display. Refer to the operating display.

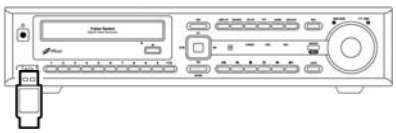
Please contact your local distributor when DVR hangs at the screen of "LOADING..." for 10 minutes after upgrading.

UPGRADE

If the USB stick is attached to DVR, the USB indicator in the information bar turns to yellow. Refer to the operating display.

■ Save the configuration file

1. Plug in the USB stick to DVR.



2. Press the "SETUP" button.
The SETUP MENU will be displayed.

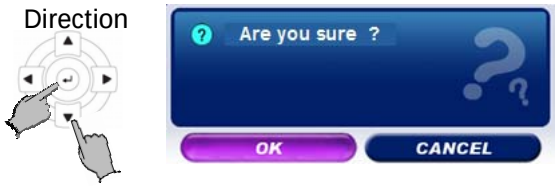
3. Press the "Setup" button and No.1, 2, 3.
P/W window will be displayed.

4. Input the "P/W" and then Press the "Enter" button.
The A/S MENU will be displayed.

5. Move the cursor to "SYSTEM" and Press the "Enter" button.
System window will be displayed.

NOTE:
Check the version information.

6. Move the cursor to "Import" and Press the "Enter" button.
The below window will be displayed.

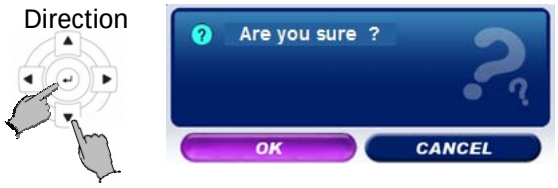


7. Move the cursor to "OK" and Press the "Enter" button.
The below window will be displayed.

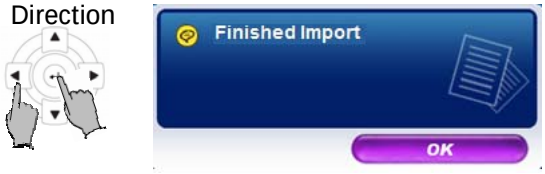
8. Press the "Enter" button.
The below window will be displayed.

■ Load the configuration file

6. Move the cursor to "Export" and Press the "Enter" button.
The below window will be displayed.



7. Move the cursor to "OK" and Press the "Enter" button.
The below window will be displayed.



8. Press the “Enter” button.
The below window will be displayed.

Enter

■ Load the default setting

6. Move the cursor to “Default” and Press the “Enter” button.
The below window will be displayed.

Direction

7. Move the cursor to “OK” and Press the “Enter” button.
The below window will be displayed.

Direction

8. Press the “Enter” button.
The below window will be displayed.

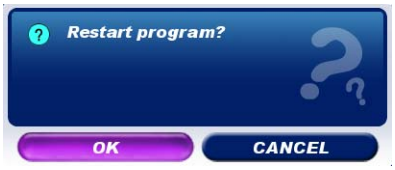
Enter

9. Press the “ESC” button.
The A/S MENU will be displayed.

Enter

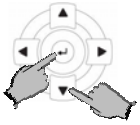
10. Press the “ESC” button.
The below window will show up.

Enter



11. Move the cursor to “OK” and Press the “Enter” button.
DVR will restart.

Direction



CONFIG/DEFAULT

MANUAL RECORDING

Do the followings to record manually.

■ Start the “Manual Recording”.

1. Press the “REC” button.
The REC LED on the front panel will light and recording will start.
Images from all the connected cameras will be recorded manually with the current recording rate.

NOTE:
When force recording is performed, schedule recording will not be performed until force recording stops.

■ Stop the “Manual Recording”.

1. Press the “REC” button once more.
The REC LED will not light and recording will stop.
Images from all the connected cameras will be recorded with the scheduled recording rate as schedule.

NORMAL RECORDING

SCHEDULE RECORDING

The below is the example for the normal recording of camera no.3, 4 and 5 from 0:00 ~ 20:00.
Follow the description to set the schedule recording.

1. Press the “SETUP” button.
The SETUP MENU will be displayed.

2. Press the “Enter” button.
The “Record” menu will be displayed.

3. Press the “Start” or “End” button.
Move to the “Schedule” menu.

4. Press the “Enter” button.
The “Schedule” menu will be displayed.

5. Press the “Enter” button.
Camera selection window will show up.

6. Move the cursor to camera no. 3 and then Press the “Enter” button.

7. Press the “Left” direction button.
Move to the timetable.

8. Press the “Enter” button and then Move the cursor.
Set a recording time.

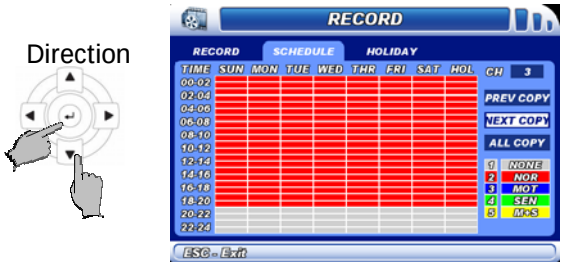
9. Press the “No.2” button
Set a normal recording schedule.

SCHEDULE RECORDING

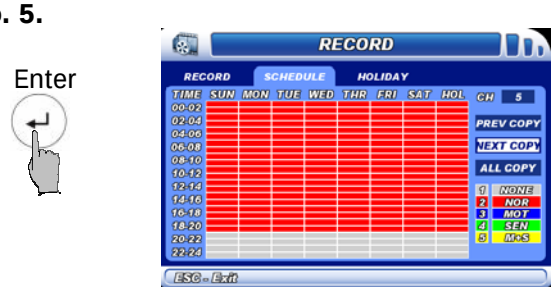
SCHEDULE RECORDING

10. Press the “ESC” button.
Go to the camera selection window.

11. Move the cursor to “Next Copy” and Press the “Enter” button.
Copy the schedule of camera no.3.

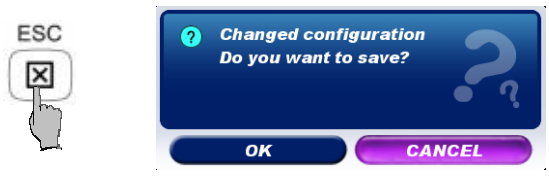


12. Press the “Enter” button again to camera no. 5.

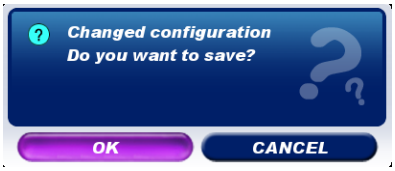


13. Press the “ESC” button.
The SETUP MENU will be displayed.

14. Press the “ESC” button again.
Save and exit window will show up.



15. Move the cursor to “OK” and Press the “Enter” button.
Save and exit the “Setup” menu.



NOTE:
Recording status will be displayed as circle on the right corner of each camera.
Refer to the operating display.

1 NONE	NONE
2 NOR	NORMAL RECORD
3 MOT	MOTION RECORD
4 SEN	SENSOR RECORD
5 M+S	MOTION+SENSOR RECORD

SCHEDULE RECORDING

DISPLAY

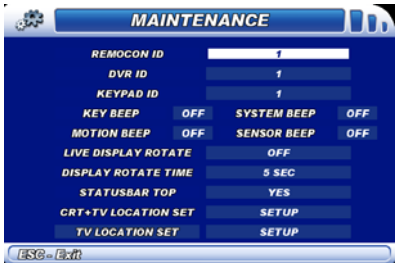
ALARM

- Turn On/Off the alarm.

BACKUP

- Copy the recorded data to CD/DVD media.

MAINTENANCE



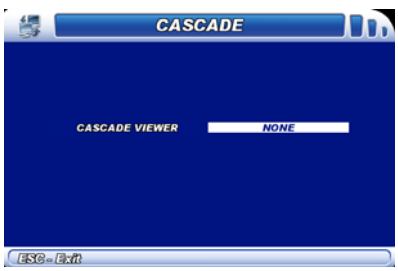
- Set a remote controller ID.
- Set a DVR ID.
- Set a Keypad ID.
- Set a beep sound.
- Turn On/Off a division rotation.
- Set the rotation time.
- Adjust the information bar location.
- Adjust the screen location. (CRT+TV)
- Adjust the screen location. (TV)

S.M.A.R.T

S.M.A.R.T.
DEVICE
[IDE:01] Maxtor 6Y120L0
TEMP
36 °C
ID ATTRIBUTE NAME THRES VALUE WORST STATUS
03 Spin Up Time 63 207 206 OK
04 Start Stop Count 0 253 253 OK
05 Reallocated Sector Ct 63 253 253 OK
06 Read Channel Margin 100 253 253 OK
07 Seek Error Rate 0 253 252 OK
08 Seek Time Performance 187 248 232 OK
09 Power On Minutes 0 225 225 OK
0A Spin Retry Count 157 253 252 OK
PREV
NEXT
ESC - Exit

- Show the HDD working status.

CASCADE



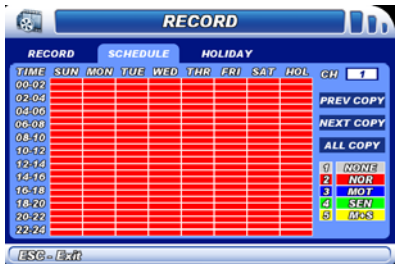
- Select a slave DVR to be showed on the monitor of the Master DVR.

■ RECORD MENU

RECORD

- Set a recording resolution. (360*240, 720*240, 720*480)
- Set a recording speed per camera.
- Set a recording quality. (Best, High, Medium, Low, Lowest)
- Set a pre-recording time. (Depend on the recording speed.)
- Set a post-recording time. (Max. recording time is 5 minutes.)

SCHEDULE



- Set a recording schedule per camera, time and recording mode. (Normal, Motion, Sensor, Motion + Sensor)

HOLIDAY

- Set a date as holiday.

■ USER MENU

USER

- Change a password per user.
- Set an authority per user. (Display, Setup, Search)
- Show/Hide a camera per user.
- Add a user list.

■ CASCADE MENU

CASCADE

- Select a Master/Slave DVR.
- Set VGA/TV Out as cascade use.
- Set a Quad1 as cascade use.
- Select a camera layout to be showed on monitor. (Quad 1 – cascade, quad) (Quad 2 – quad) (Spot – 1CH)

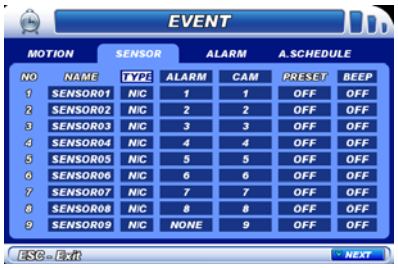
■ EVENT MENU

MOTION

EVENT
MOTION
SENSOR
ALARM
A.SCHEDULE
CH REGION SENSITIVITY ALARM BEEP
1 FULL STEP 5 1 OFF
2 FULL STEP 5 2 OFF
3 FULL STEP 5 3 OFF
4 FULL STEP 5 4 OFF
5 FULL STEP 5 5 OFF
6 FULL STEP 5 6 OFF
7 FULL STEP 5 7 OFF
8 FULL STEP 5 8 OFF
9 FULL STEP 5 NONE OFF
ESC - Exit
NEXT

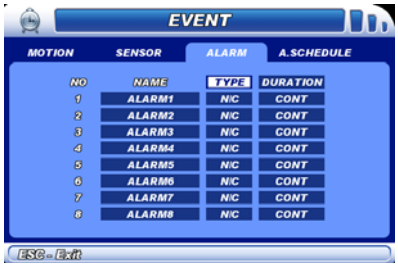
- Set the motion detecting area. (None, Full, User)
- Set the sensitivity of motion detection. (Step 1 ~ Step 14)
- Set the alarm to be linked with motion detection camera.
- Turn On/Off the beep sound when motion is triggered

SENSOR


EVENT
MOTION
SENSOR
ALARM
A.SCHEDULE
NO NAME TYPE ALARM CAM PRESET BEEP
1 SENSOR01 N/C 1 1 OFF OFF
2 SENSOR02 N/C 2 2 OFF OFF
3 SENSOR03 N/C 3 3 OFF OFF
4 SENSOR04 N/C 4 4 OFF OFF
5 SENSOR05 N/C 5 5 OFF OFF
6 SENSOR06 N/C 6 6 OFF OFF
7 SENSOR07 N/C 7 7 OFF OFF
8 SENSOR08 N/C 8 8 OFF OFF
9 SENSOR09 N/C NONE 9 OFF OFF
ESC - Exit
NEXT

- Set the sensor device name.
- Select the sensor type. (N/C, N/O)
- Set the alarm to be linked with sensor.
- Set the camera to be linked with sensor.
- Select a preset no. of the camera to work when the sensor is triggered.
- Turn On/Off the beep sound when motion is triggered

ALARM



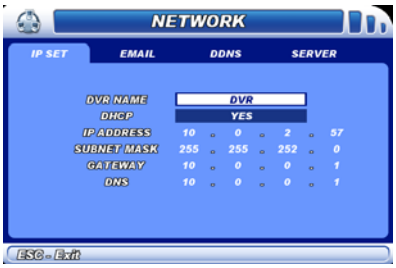
- Set the alarm device name.
- Select the alarm type. (N/C, N/O)
- Set the alarm duration time. (None, 1sec ~ 10min, Continue)

A.SCHEDULE

- Set an alarm recording schedule per alarm.

■ NETWORK MENU

IP SET

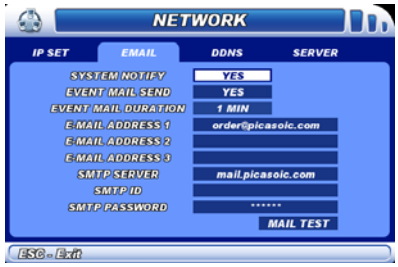


- Set the DVR name.
- Select On/Off whether not to use DHCP server.

The below network setting is available when DHCP is OFF.

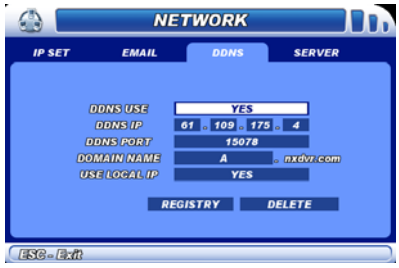
- Enter the IP address.
- Enter the Subnet Mask according to the network configuration.
- Enter the Gateway according to the network configuration.
- Enter the DNS according to the network configuration.

E-MAIL



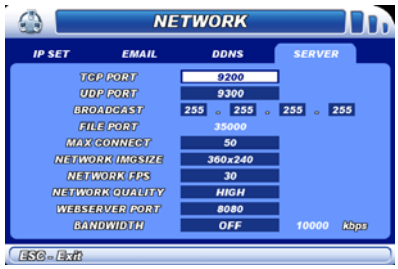
- Select On/Off whether not to send an e-mail for fan failure and DVR restarts.
- Select On/Off whether not to send an e-mail when motion or sensor is triggered.
- Set the e-mail duration time for motion and sensor.
- Enter the e-mail address.
- Enter the SMTP server.
- Enter the SMTO ID & P/W according to the network configuration.
- Check if the registered e-mail information is available.

DDNS



- Select On/Off whether not to use DDNS
- Enter the DDNS IP address. (Default)
- Enter the DDNS port no. (Default)
- Enter the domain name for DDNS.
- Register the domain name to DDNS.

SERVER



- Enter the TCP Port no. (Default)
- Enter the UDP Port no. (Default)
- Enter the Broadcast address. (Default)
- Set the connection user. (Max. 50)
- Set the image size for network transmission.
- Set the network transmission speed.
- Set the image quality for transmission.
- Enter the Web server Port no. (Default)
- Set the Bandwidth.

NOTE:

DEFAULT

Default means the recommended value that is provided with DVR. If you want to change the default, consult with the local distributor.

■ CAMERA MENU

CAMERA

CAMERA
CAMERA
COLOR
CH ENABLE NAME AUDIO PTZ ID
1 ON CAM01 OFF NONE 1
2 ON CAM02 OFF NONE 2
3 ON CAM03 OFF NONE 3
4 ON CAM04 OFF NONE 4
5 ON CAM05 NONE 5
6 ON CAM06 NONE 6
7 ON CAM07 NONE 7
8 ON CAM08 NONE 8
9 ON CAM09 NONE 9
ESC - Exit
NEXT

- Enable the camera. (On/Off)
- Enter the camera name.
- Enable the audio. (On/Off)
- Select a PTZ protocol.
- Select a PTZ address.

COLOR

- Adjust the color of the camera. (Brightness, Contrast, Hue, Saturation)

■ MAINTENANCE MENU

SYSTEM

- Select the date format.
- Select the transparency of menu window.
- Enable the audio. (On/Off)
- Select a PTZ protocol.

LOG

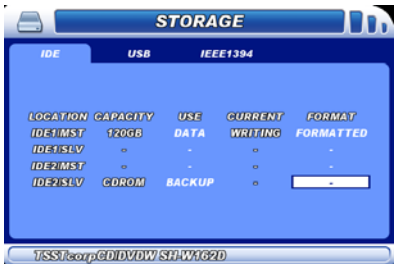
- Show the log list for working status.

TIMESYNC

- Enter the Time Server IP address.
- Enter the Time Server port no.
- Select On/Off whether not to use Time Server.
- Set the checking cycle with the Time Server.

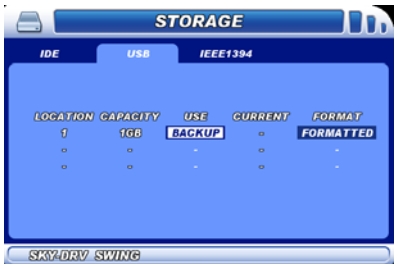
■ STORAGE MENU

IDE



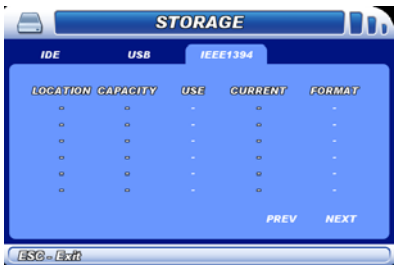
- Show the IDE device information
- Set the HDD as Backup or Data use
- Format the HDD only for Backup use.

USB



- Show the USB device information.

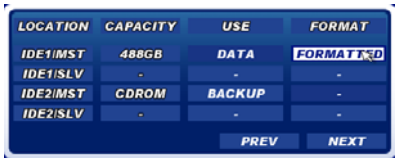
IEEE1394



- Show the IEEE1394 device information and format the HDD.

SETUP MENU

FORMAT



● Show the IDE device information and format the device.

MAC ADDRESS

● Set the Mac Address.

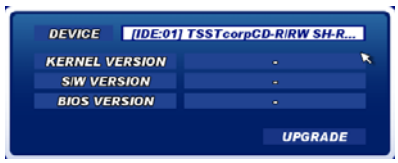
SYSTEM

● Select the language and Save/Load the configuration file. Make the system to factory setting mode. (Default)

DATE/TIME

● Set the time zone and time.

UPGRADE



● Upgrade the S/W.

HDD CHECK

● Check the HDD.

REBUILD MAP

● Rebuild the map of recorded data when it is corrupted.

■ Quick Search

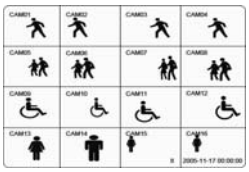
1. Press the “Play” button.
Playback mode will be displayed directly.

NOTE:
To change the camera division, press a camera no. or a direction button for 1CH, 4CH, 9CH, 16CH.
Refer to the viewing a camera.

■ Changing the playback speed and direction

2. Press the “Play/FF” button again.
Fast play starts and **>>** will appear in the playback display.
Maximum fast forward level is **>>>>**.

3. Press the “Pause” button.
Fast Play will be paused and II will appear in the playback display.



4. Press the “Rew/Rev” button.
Reverse playback starts and **<** will appear in the playback display.

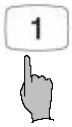
5. Press the “Rew/Rev” button again.
Reverse playback starts and **<<** will appear in the playback display.
Maximum reverse playback level is **<<<<**.

NOTE:
If playback is started just as recording is being carried out, recording will have priority, so that the playback mode is automatically paused.

■ Zooming the image during playback

This function will be available at PLAYBACK mode.

1. Press a camera selection button.
The camera image appears as a single screen.



1CH Division

2. Press the “Zoom” button.
The image will be enlarged at full screen.

Zoom

3. Press the “Zoom” button again to return to the original image.

QUICK SEARCH

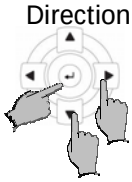
NORMAL SEARCH

1. Press the “Search” button.
The “Search” menu will be displayed.

2. Press the “Enter” button.
The CALENDAR will be displayed.
YELLOW- Date with the recorded data.

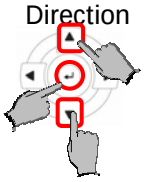
NOTE:
It could take a few minutes to bring out the recorded data according to HDD capacity.

3. Move the cursor to the Date (Yellow) and Press the “Enter” button.
Data map will be displayed for 24 hours.



4. Press the “Left” or “Right” button and Press the “Enter” button.
Data map will be displayed for 60 minutes.

5. Press the “Up” or “Down” button
Show the camera no. 10~16.



6. Press the “Enter” button.
Playback mode will be displayed.

NOTE:
The below is the playback button explanation.

START — Go to the oldest recorded data.

END — Go to the latest recorded data.

PLAY/FF — Play / Fast forward

REW/REV — Reverse / Fast rewind

FRAME — Go to the Previous / Next frame.

STOP — Stop

PAUSE — Pause

NORMAL SEARCH

EVENT SEARCH

The below procedure is the explanation of the Event Search. (Ex: Motion, Camera no. 1)

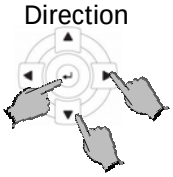
1. Press the “Search” button.
The “Search” menu will be displayed.

2. Move to the cursor “EVENT” and Press the “Enter” button.
The “Event” menu will be displayed.

Direction

3. Move the cursor to “Start” and “End” time.

Direction



4. Set the “Start” and “End” time.

5. Move the cursor to “Refresh” and Press the “Enter” button.

Direction

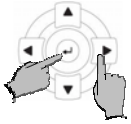
6. Move the cursor to “Type” and Press the “Enter” button.

Direction

7. Select the “Motion”.

8. Move the cursor to “CH” and Press the “Enter” button.

Direction



9. Select the camera no. “1”.
The data list will be displayed.

10. Move the cursor to the detailed time and Press the “Enter” button.
Playback mode will be displayed.

Direction

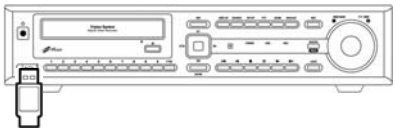
EVENT SEARCH

STILL IMAGE SAVE

■ Still Image Save

Still image save is only available at 1 CH screen division at playback mode of SEARCH.

1. Plug in the USB stick to DVR.



2. Go to the Playback mode at SEARCH.
Please refer to the Quick Search, Normal Search and Event Search.

3. Press a camera selection button.
The camera image appears as a single screen.

1CH Division

4. Press the "Zoom" button.
The image will be enlarged at full screen.

Zoom

5. Press the "Backup" button.
Save the image to the USB stick.

BACKUP

■ Viewing the saved still image at PC

The saved still image is PNG file format compatible with normal viewer programs.

1. Plug in the USB stick to PC.

2. Double click the saved image file.
The image will be showed like the below.

NOTE:

CH3 20051117 000004 NTSC

CH3	Camera Name
20051117	Year / Month / Day
000004	Hour / Minute / Second
NTSC	Video Signal Type

STILL IMAGE SAVE

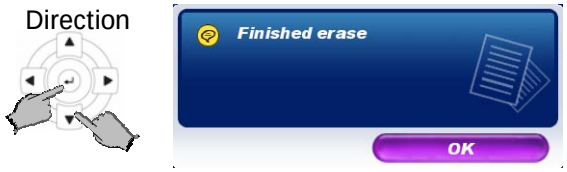
■ Backup

To copy the recorded images to CD or DVD media, formatting the media is required.

1. Insert the CD / DVD media to the device.

2. Press “Backup” button.
The “Backup” menu will be displayed.

3. Move the cursor to “Erase” and Press the “Enter” button.
After formatting, the below message will be displayed.



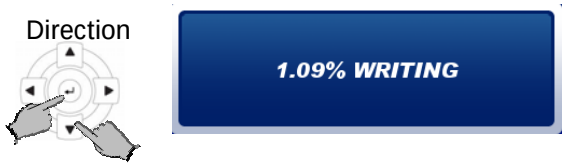
NOTE:
It is impossible to recover the deleted images on CD/DVD media.

4. Press the “Enter” button and Move the cursor to “Start” and “End” time.

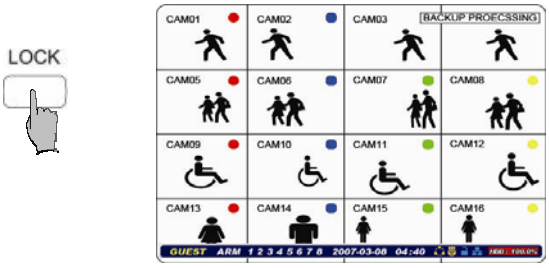
5. Set the “Start” and “End” time.

6. Move the cursor to “Refresh” and Press the “Enter” button.

7. Move the cursor to “Start” and Press the “Enter” button.
Backup progress window will be displayed.



8. Press the “Lock” button.
Show the live image while processing the backup.



NOTE:
BACKUP PROCESSING
At this mode, live viewing is only available.
Press any buttons to return to the backup menu.

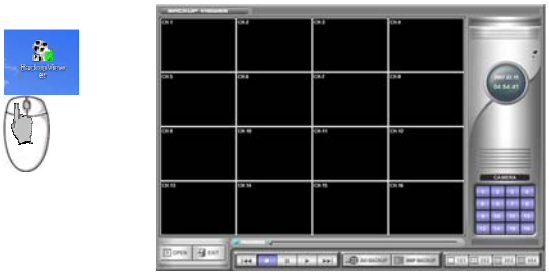
NOTE:
For the external Backup media, it supports only IEEE1394, not USB 2.0.

■ Viewing the backup data at PC

1. Insert the Backup viewer S/W CD to PC.

2. Double click the “Setup” file of the “BACKUP VIEWER”.
The below icon will show up after installing the “Backup Viewer”.

3. Double click the Backup viewer icon.
Backup viewer will be displayed.



4. Press the “OPEN” and Select the DB from the list.
Playback mode will be displayed.

■ AVI Backup

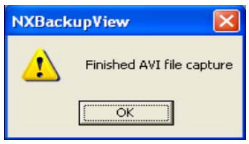
1. Select one channel.
1CH screen division will be displayed.

2. Press the “AVI Backup”.
Window explorer will be displayed.

3. Select the directory for AVI Backup.

4. Input the file name and Press the “Save”.
The “AVI Backup” will turn to Yellow.

5. Press the “AVI BACKUP” again.
The below window will be displayed.



6. Press the “OK”.

■ BMP Backup

1. Select one channel.
1CH screen division will be displayed.

2. Press the “BMP Backup”.
Window explorer will be displayed.

3. Select the directory for BMP Backup.

4. Input the file name and Press the “Save”.
The BMP file will be saved.

Connect a camera that supports a preset function to DVR.
Refer to the figure of PTZ connection.

Example Setting
Camera Menu: Camera No.3 as PELCO D, ID - 1.

1. Press the "SETUP" button.
The SETUP MENU will be displayed.

2. Move the cursor to "CAMERA" and Press the "Enter" button.
The "Camera" menu will be displayed.

Direction
CAMERA
CAMERA
COLOR
CH ENABLE NAME AUDIO PTZ ID
1 ON CAM01 OFF NONE 1
2 ON CAM02 OFF NONE 2
3 ON CAM03 OFF NONE 3
4 ON CAM04 OFF NONE 4
5 ON CAM05 NONE 5
6 ON CAM06 NONE 6
7 ON CAM07 NONE 7
8 ON CAM08 NONE 8
9 ON CAM09 NONE 9
ESC - Exit

3. Move the cursor to "PTZ" of camera no.3 and Press the "Enter" button.
The below window will be displayed.

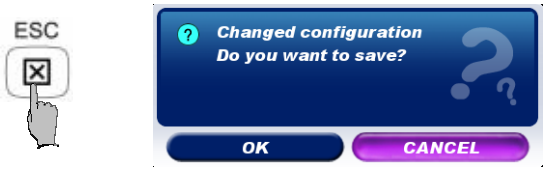
Direction
CAMERA
CAMERA
COLOR
CH ENABLE NAME AUDIO PTZ ID
1 ON CAM01 OFF NONE 1
2 ON CAM02 OFF NONE 2
3 ON CAM03 OFF NONE 3
4 ON CAM04 OFF NONE 4
5 ON CAM05 NONE 5
6 ON CAM06 PELCO-P 6
7 ON CAM07 PELCO-D 7
8 ON CAM08 LG LPT-SD 16... 8
9 ON CAM09 NONE 9
ESC - Exit
NEXT

4. Select a "Pelco D" and Press the "Enter" button.
The below window will be displayed.

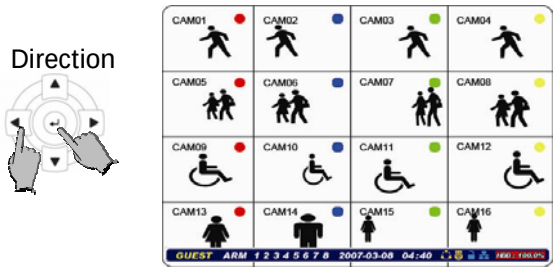
5. Move the cursor to "ID" of camera no.3 and Press the "Enter" button.
The below window will be displayed.

6. Select a "1" and Press the "Enter" button.
The below window will be displayed.

7. Press the "ESC" button again.
Save and exit window will show up.

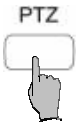


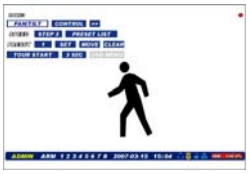
8. Move the cursor to "OK" and Press the "Enter" button.
Live mode will show up.



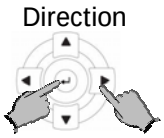
9. Press the camera selection button "3".

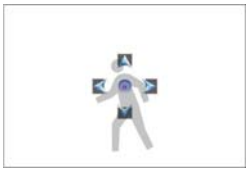
10. Press the “PTZ” button.
The PTZ menu will be displayed.



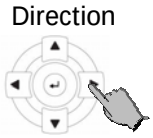


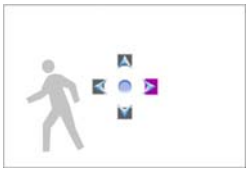
11. Move the cursor to “Control” and Press the “Enter” button.
Pan/Tile mode will be displayed.



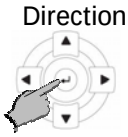


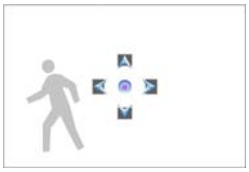
12. Press the “Right” direction button.
Camera will move to the right direction.



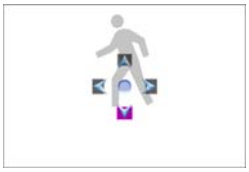


13. Press the “Enter” button.
Camera will stop moving.

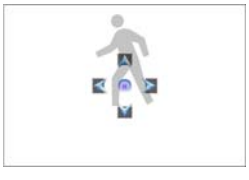




14. Press the “Down” direction button.
Camera will move to the right direction.

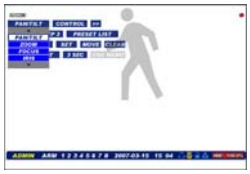


15. Press the “Enter” button.
Camera will stop moving.



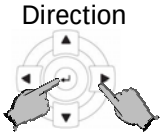
16. Press the “ESC” button.
The PTZ menu will be displayed.

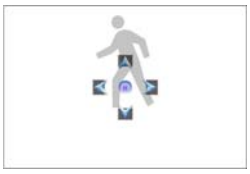
17. Move the cursor to “Pan/Tilt” and Press the “Enter” button.
The below window will be displayed.



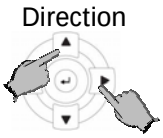
18. Select the “Zoom” and Press the “Enter” button.

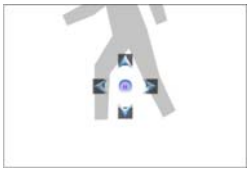
19. Move the cursor to “Control” and Press the “Enter” button.
The below window will be displayed.



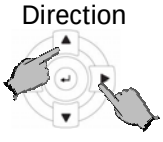


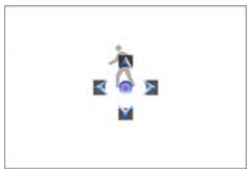
20. Press the “UP” or “Right” direction button.
Image will be enlarged.



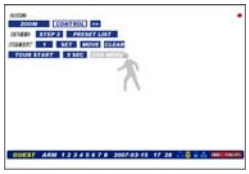


21. Press the “Down” or “Left” direction button.
Image will be downsized.



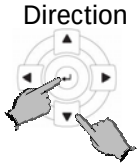


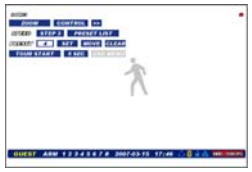
22. Press the “ESC” button.
The PTZ menu will be displayed.



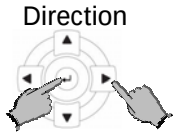
23. Move the cursor to “Preset” and Press the “Enter” button.
The below window will be displayed..

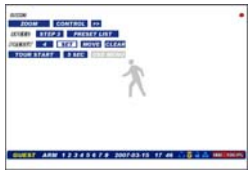
24. Select the preset no. “4” and Press the “Enter” button.
The below window will be displayed.





25. Move the cursor to “Set” and Press the “Enter” button.
Preset will be saved to Preset ID No. 4.





26. Press the “ESC” button.
The live mode will be displayed.

MOTION/ALARM SETTING

The below procedure is the example setting of the motion & alarm.

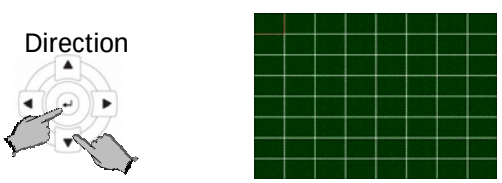
Example Setting
Motion Menu: Camera No. – 3, Motion - User, Sensitivity -3, Alarm – 1, 3, 4, and Beep - ON
Alarm Menu: Alarm duration – 10 Sec

1. Press the "SETUP" button.
The SETUP MENU will be displayed.

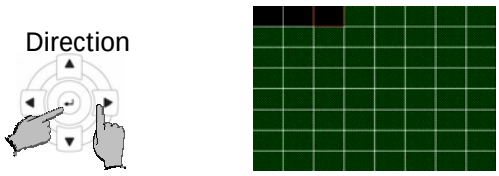
2. Move the cursor to "EVENT" and Press the "Enter" button.
The "Motion" menu will be displayed.

3. Move the cursor to "Region" of CH 3 and Press the "Enter" button.
The below menu will be displayed.

4. Select the "User" and Press the "Enter" button.
Motion setting area will be displayed.



5. Move the cursor and Press the "Enter button.
The motion setting area will be changed.



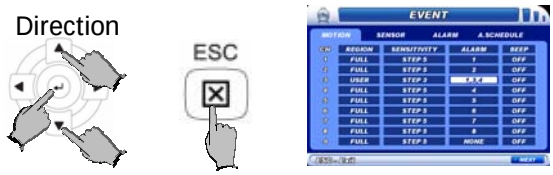
6. Press the "ESC" button.
The below window will be displayed.

7. Move the cursor to "Sensitivity" of CH3 and Press the "Enter" button.
The below window will be displayed.

8. Select the "Step 3" and Press the "Enter" button.
The below window will be displayed.

9. Move the cursor to “Alarm” of CH3 and Press the “Enter” button.
The below window will be displayed.

10. Select the alarm no.“1, 3, 4” and Press the “ESC” button.
The below window will be displayed.



11. Move the cursor to “Beep” of CH3 and Press the “Enter” button.
The below window will be displayed.

12. Move the cursor to “Alarm” using the “Start” or “End” button.

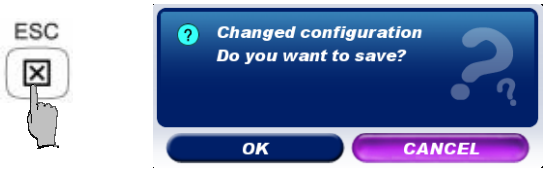
13. Press the “Enter” button.
The “Alarm” menu will be displayed.

14. Move the cursor to “Duration” of Alarm no. 3 and Press the “Enter” button.
The below window will be displayed.

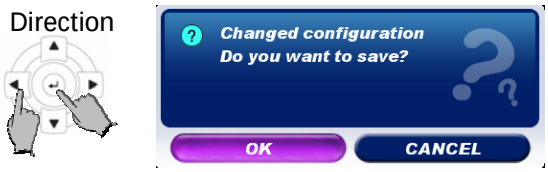
15. Select the duration to “10 sec” and Press the “Enter” button.
The below window will be displayed.

16. Press the “ESC” button.
The SETUP MENU will be displayed.

17. Press the “ESC” button again.
Save and exit window will show up.



18. Move the cursor to “OK” and Press the “Enter” button.
Save and exit the “Setup” menu.



SENSOR/ALARM SETTING

The below procedure is the example setting of the sensor & alarm.

Example Setting
Sensor Menu: Type – N/C, Alarm No. – 3, 4, 5, Camera No. – 3, 6, 7, Preset link camera – 3, Preset ID No. - 2, Preset duration – 10 sec
Beep - ON
Alarm Menu: Alarm duration – 10 Sec

1. Press the "SETUP" button.
The SETUP MENU will be displayed.

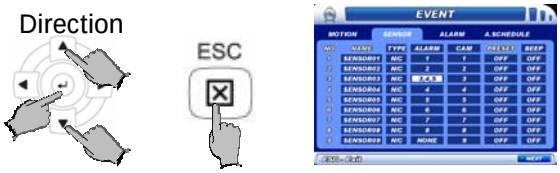
2. Move the cursor to "EVENT" and Press the "Enter" button.
The "Motion" menu will be displayed.

3. Move the cursor to "Sensor" using the "Start" or "End" button.

4. Press the "Enter" button.
The "Sensor" menu will be displayed.

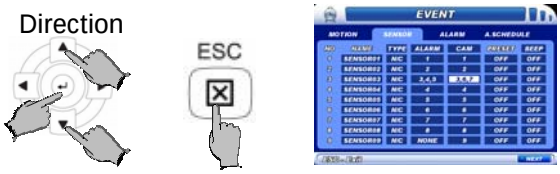
5. Move the cursor to "Alarm" of sensor no. 3 and Press the "Enter" button.
The below menu will be displayed.

6. Select the alarm no."3, 4, 5" and Press the "ESC" button.
The below window will be displayed.

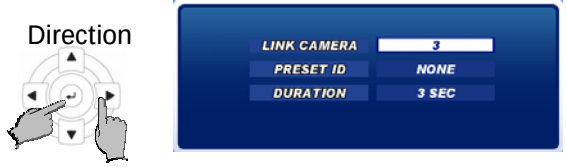


7. Move the cursor to "Cam" of sensor no.3 and Press the "Enter button.
The below window will be displayed.

8. Select the cam no."3, 6, 7" and Press the "ESC" button.
The below window will be displayed.



9. Move the cursor to "Preset" of sensor no.3 and Press the "Enter button.
The below window will be displayed.



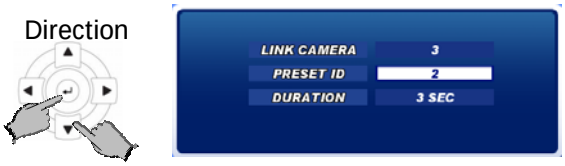
SENSOR/ALARM SETTING

10. Press the “Enter” button.
The below window will be displayed.

11. Select a camera no. 3 and Press the “Enter” button.
The below window will be displayed.

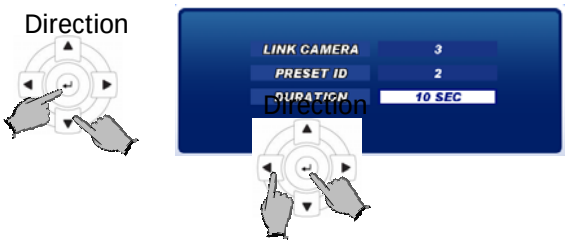
12. Move the cursor to “Preset ID” and Press the “Enter” button.
The below window will be displayed.

13. Select a preset ID no. 3 and Press the “Enter” button.
The below window will be displayed.



14. Move the cursor to “Duration” and Press the “Enter” button.
The below window will be displayed.

15. Select a preset ID no. 3 and Press the “Enter” button.
The below window will be displayed.



16. Press the “ESC” button.
The below window will be displayed.

ESC
EVENT
MOTION SENSOR ALARM A.SCHEDULE
NO NAME TYPE ALARM CAM PRESET BEEP
1 SENSOR01 N/C 1 1 OFF OFF
2 SENSOR02 N/C 2 2 OFF OFF
3 SENSOR03 N/C 3,4,5 3,6,7 ON OFF
4 SENSOR04 N/C 4 4 OFF OFF
5 SENSOR05 N/C 5 5 OFF OFF
6 SENSOR06 N/C 6 6 OFF OFF
7 SENSOR07 N/C 7 7 OFF OFF
8 SENSOR08 N/C 8 8 OFF OFF
9 SENSOR09 N/C NONE 9 OFF OFF
ESC - Exit
NEXT

17. Move the cursor to “Beep” of sensor no. 3 and Press the “Enter” button.
The below window will be displayed.

Direction
EVENT
MOTION SENSOR ALARM A.SCHEDULE
NO NAME TYPE ALARM CAM PRESET BEEP
1 SENSOR01 N/C 1 1 OFF OFF
2 SENSOR02 N/C 2 2 OFF OFF
3 SENSOR03 N/C 3,4,5 3,6,7 ON ON
4 SENSOR04 N/C 4 4 OFF OFF
5 SENSOR05 N/C 5 5 OFF OFF
6 SENSOR06 N/C 6 6 OFF OFF
7 SENSOR07 N/C 7 7 OFF OFF
8 SENSOR08 N/C 8 8 OFF OFF
9 SENSOR09 N/C NONE 9 OFF OFF
ESC - Exit
NEXT

18. Move the cursor to “Alarm” using the “Start” or “End” button.

START
END
EVENT
MOTION SENSOR ALARM A.SCHEDULE
CH REGION SENSITIVITY ALARM BEEP
1 FULL STEP 5 1 OFF
2 FULL STEP 5 2 OFF
3 FULL STEP 5 3 OFF
4 FULL STEP 5 4 OFF
5 FULL STEP 5 5 OFF
6 FULL STEP 5 6 OFF
7 FULL STEP 5 7 OFF
8 FULL STEP 5 8 OFF
9 FULL STEP 5 NONE OFF
ESC - Exit
NEXT

19. Press the “Enter” button.
The “Alarm” menu will be displayed.

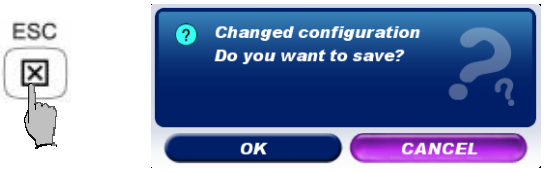
SENSOR/ALARM SETTING

20. Move the cursor to "Duration" of Alarm no. 3 and Press the "Enter" button.
The below window will be displayed.

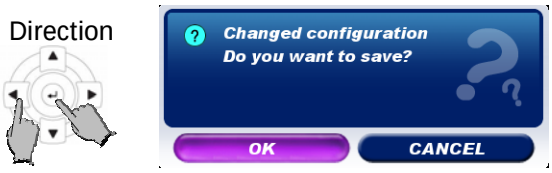
21. Select the duration to "10 sec" and Press the "Enter" button.
The below window will be displayed.

22. Press the "ESC" button.
The SETUP MENU will be displayed.

23. Press the "ESC" button again.
Save and exit window will show up.



24. Move the cursor to "OK" and Press the "Enter" button.
Save and exit the "Setup" menu.



ALARM SCHEDULE

The below procedure is the example setting of the alarm schedule.

Example Setting
Alarm No. 3, 4 from 0:00 ~ 21:00

1. Press the “SETUP” button.
The SETUP MENU will be displayed.

2. Move the cursor to “EVENT” and Press the “Enter” button.
The “Motion” menu will be displayed.

3. Move the cursor to “A.Schedule” using the “Start” or “End” button.

4. Press the “Enter” button.
The “A.Schedule” menu will be displayed.

5. Press the “Enter” button.
The below will be displayed.

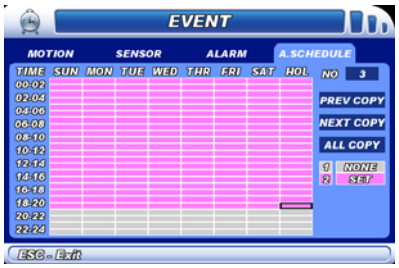
6. Select an alarm no. 3 and Press the “Enter” button.
The below window will be displayed.

7. Press the “Left” direction button.
Move to the timetable.

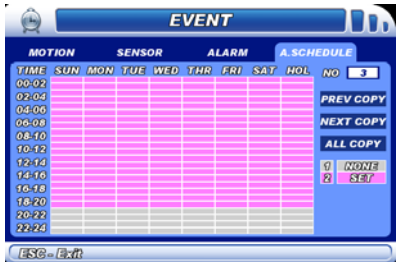
8. Press the “Enter” button and then Move the cursor.
Set a recording time.

ALARM SCHEDULE

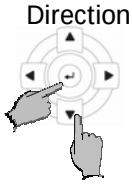
9. Press the “No.2” button
Set a recording schedule for alarm.



10. Press the “ESC” button.
Go to the alarm selection window.

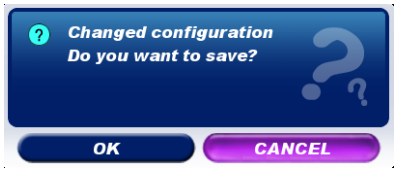


11. Move the cursor to “Next Copy” and Press the “Enter” button.
Copy the schedule of alarm no.3 to alarm no.4.

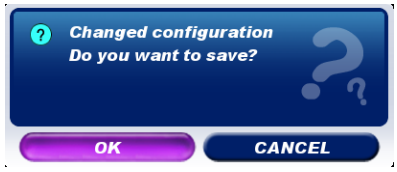


12. Press the “ESC” button.
The SETUP MENU will be displayed.

13. Press the “ESC” button again.
Save and exit window will show up.



14. Move the cursor to “OK” and Press the “Enter” button.
Save and exit the “Setup” menu.



ALARM SCHEDULE

MASTER/SLAVE SETTING

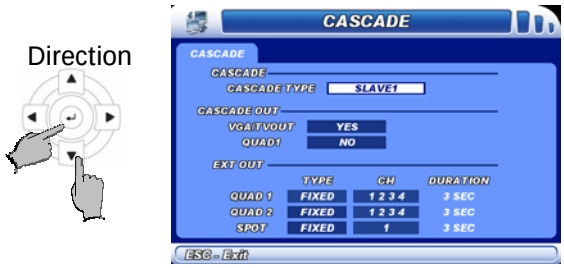
1. Press the "SETUP" button.
The SETUP MENU will be displayed.

2. Move the cursor to "CASCADE" and Press the "Enter" button.
The "Cascade" menu will be displayed.

3. Press the "Enter" button.
The selection window will be displayed.

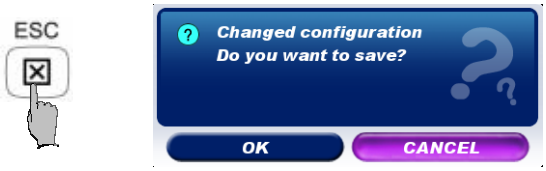
4. Select the "Master" and Press the "Enter" button.
The below window will be displayed.

4-1. Select the "Slave1" and Press the "Enter" button.
The below window will be displayed.

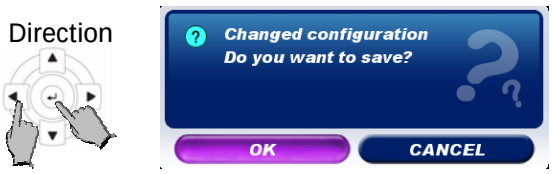


5. Press the "ESC" button.
The SETUP MENU will be displayed.

6. Press the "ESC" button again.
Save and exit window will show up.



7. Move the cursor to "OK" and Press the "Enter" button.
Save and exit the "Setup" menu.



■ Cascade control using one monitor at Master DVR

Connects the two monitors, RJ-11 cable and BNC cable like the below figure. Master DVR controls the slave DVR through the cascade communication.

Refer to the Master / Salve DVR setting.

NOTE:
RJ-11 – Command signal transmission (RS-485)
BNC – Image transmission

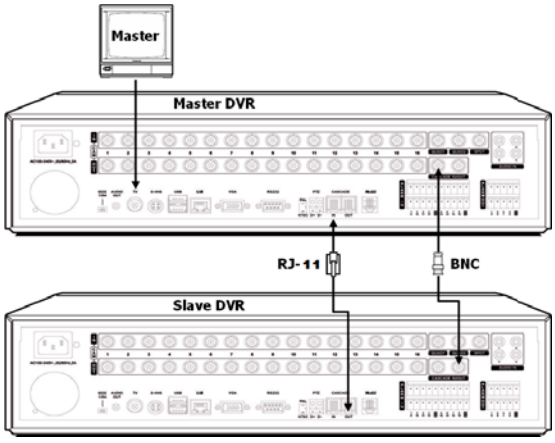


Figure 22. Master monitor setting at Master DVR

NOTE:
The below setting is on Master DVR.

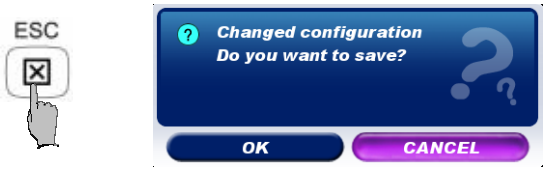
1. Press the "SETUP" button.
The SETUP MENU will be displayed.

2. Move the cursor to "CASCADE" and Press the "Enter" button.
The "Cascade" menu will be displayed.

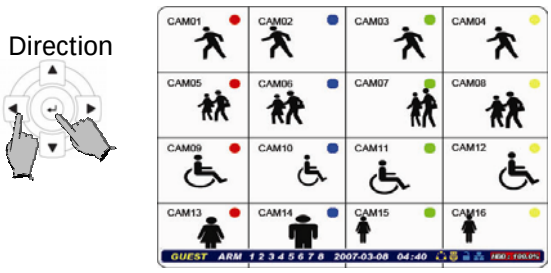
3. Move the cursor to "VGA/TV OUT" and Set as "YES".
The "Cascade" menu will be displayed.

4. Press the "ESC" button.
The SETUP MENU will be displayed.

5. Press the "ESC" button again.
Save and exit window will show up.



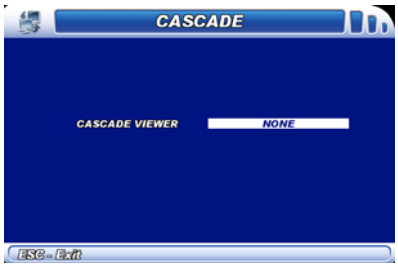
6. Move the cursor to "OK" and Press the "Enter" button.
The live mode will be displayed.



7. Press the "ESC" button.
The DISPLAY MENU will be displayed.

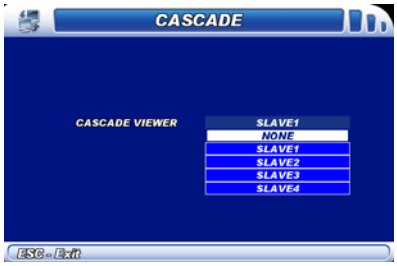
8. Move the cursor to “CASCADE” and Press the “Enter” button.
The “Cascade” menu will be displayed.

Direction



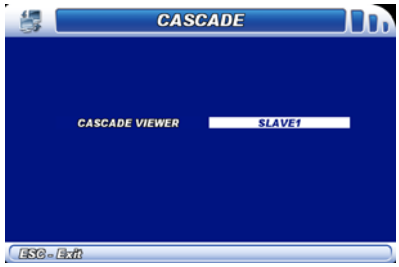
9. Press the “Enter” button.
The selection window will show up.

Enter



10. Select the “Slave1” and Press the “Enter” button.

Direction

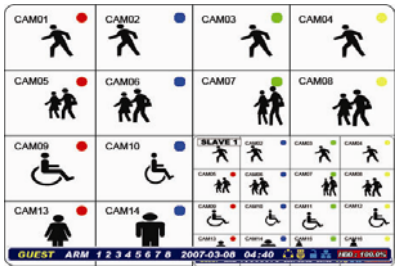


11. Press the “ESC” button.
The DISPLAY MENU will be displayed.

ESC

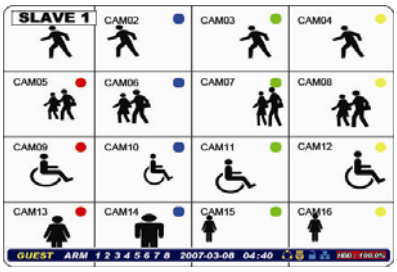
12. Press the “ESC” button.
The salve DVR will be displayed in PIP.

ESC



13. Press the “F1” button.
The slave DVR will be enlarged and controllable.

F1



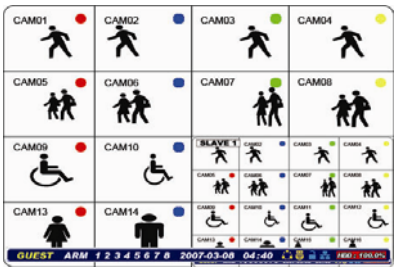
NOTE:
On this mode, user can control the slave DVR through cascade communication.

14. Press the “F3” button.
Show the other slave DVRs connected through cascade communication.

F3

15. Press the “F1” button.
The salve DVR will be displayed in PIP.

F1



■ Cascade control using two monitors at Master DVR

Connects the monitors, RJ-11 (RS-485) and BNC cable like the below figure. Master DVR controls the slave DVR through the cascade communication.

Refer to the Master / Salve DVR setting.

NOTE:
RJ-11 – Command signal transmission (RS-485)
BNC – Image transmission

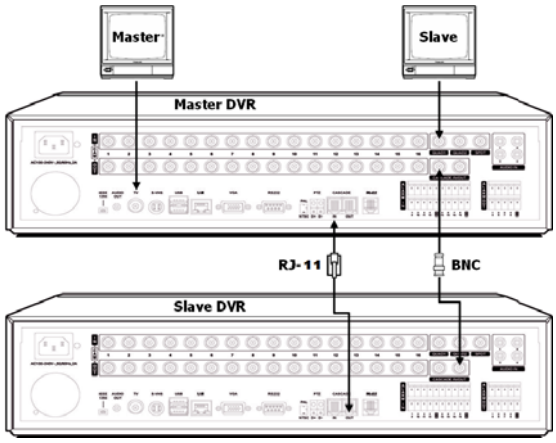


Figure 23. Master / Slave monitor setting at Master DVR

NOTE:
The below setting is on Master DVR.

1. Press the "SETUP" button.
The SETUP MENU will be displayed.

2. Move the cursor to "CASCADE" and Press the "Enter" button.
The "Cascade" menu will be displayed.

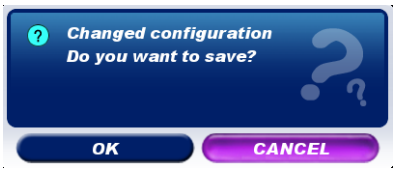
3. Move the cursor to "VGA/TV Out" and Set the VGA/TV out as "NO".
Use the Quad1 output as Slave DVR monitor.

4. Move the cursor to "Quad1" and Set the Quad1 as "YES".
Use the Quad1 output as Slave DVR monitor.

NOTE:
If "Quad1" is set to "YES", the Slave DVR will be displayed on the Slave monitor.

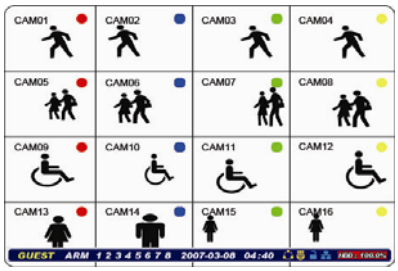
5. Press the "ESC" button.
The SETUP MENU will be displayed.

6. Press the "ESC" button again.
Save and exit window will show up.



7. Move the cursor to “OK” and Press the “Enter” button.
The live mode will be displayed.

Direction

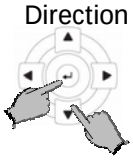


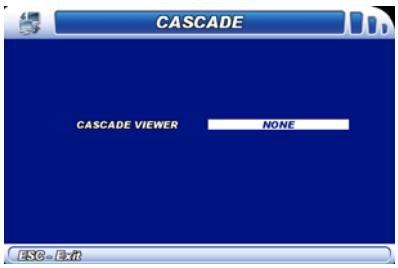
8. Press the “ESC” button.
The DISPLAY MENU will be displayed.

ESC

9. Move the cursor to “CASCADE” and Press the “Enter” button.
The “Cascade” menu will be displayed.

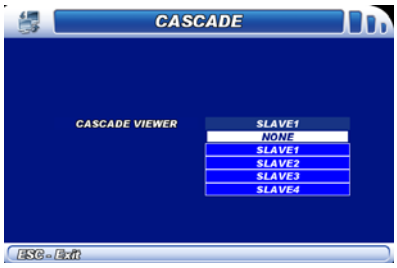
Direction





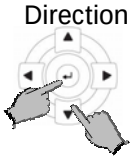
10. Press the “Enter” button.
The selection window will show up.

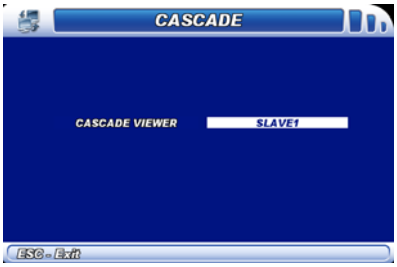
Enter



11. Select the “Slave1” and Press the “Enter” button.

Direction



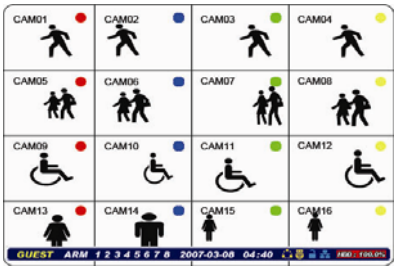


12. Press the “ESC” button.
The DISPLAY MENU will be displayed.

ESC

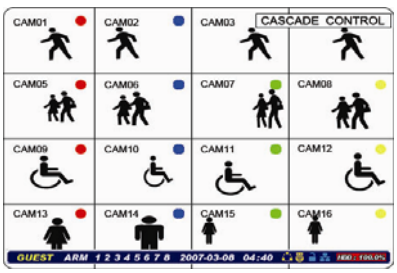
13. Press the “ESC” button.
The live mode will be displayed.

ESC



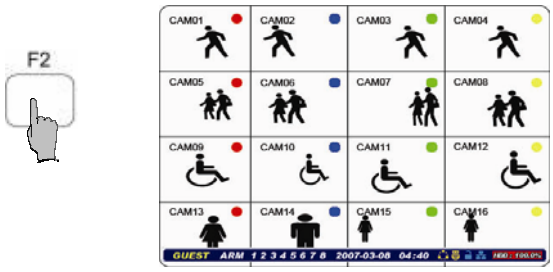
14. Press the “F2” button.
Cascade control message will show up.
Control the slave DVR on the slave monitor through the master DVR.

F2



15. Press the “F3” button.
Show the other slave DVRs connected through cascade communication.

16. Press the “F2” button again.
Cascade control message will disappear.
Control the master DVR on the master monitor.

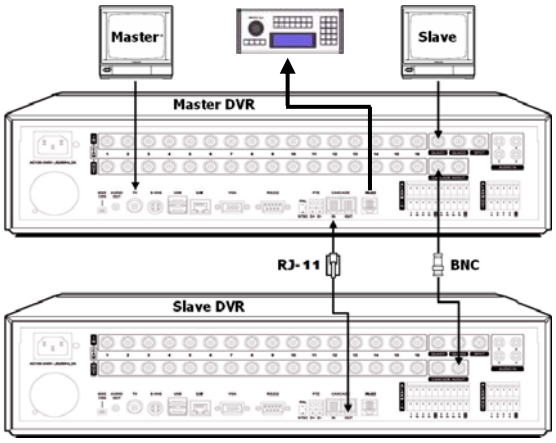


CASCADE CONTROL

■ Control the DVRs with a system controller.

The below procedure is the example setting to control two DVRs with one system controller.

Example Setting
Master DVR:
DVR ID – 1
Keypad ID – 1
Slave DVR:
DVR ID – 2
Keypad ID – 1



● MASTER DVR SETTING

1. Press the “ESC” button.
The DISPLAY MENU will be displayed.

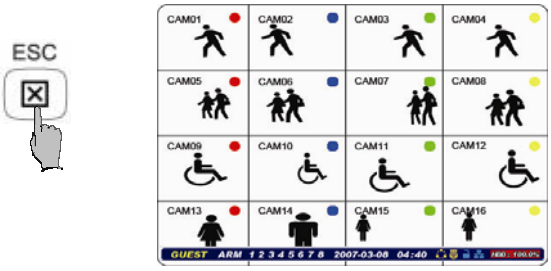
2. Move the cursor to “MAINTENACNE” and Press the “Enter” button.
The “Maintenance” menu will be displayed.

3. Move the cursor to “DVR ID” and Set the DVR Id as “1”.

4. Move the cursor to “Keypad ID” and Set the Keypad ID as “1”.
The “Maintenance” menu will be displayed.

5. Press the “ESC” button.
The DISPLAY MENU will be displayed.

6. Press the “ESC” button.
The live mode will be displayed.



● SLAVE DVR SETTING

1. Press the “ESC” button.
The DISPLAY MENU will be displayed.

CASCADE CONTROL

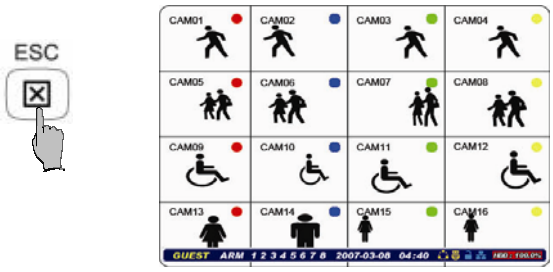
2. Move the cursor to “MAINTENACNE” and Press the “Enter” button.
The “Maintenance” menu will be displayed.

3. Move the cursor to “DVR ID” and Set the DVR Id as “2”.

4. Move the cursor to “Keypad ID” and Set the Keypad ID as “1”.
The “Maintenance” menu will be displayed.

5. Press the “ESC” button.
The DISPLAY MENU will be displayed.

6. Press the “ESC” button.
The live mode will be displayed.



CASCADE CONTROL

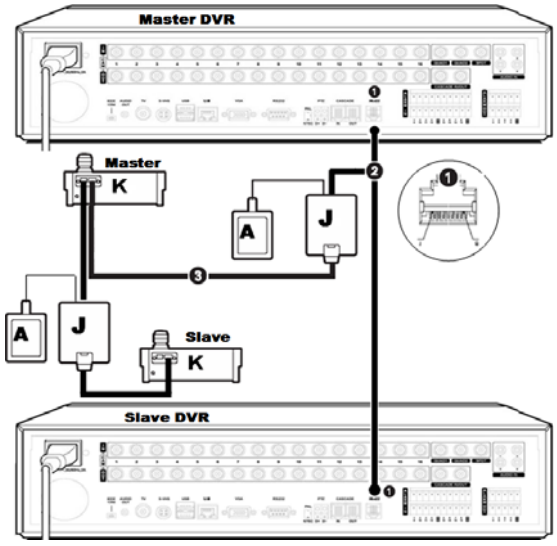
MASTER/SLAVE KEYPAD

■ Control the DVRs with master/slave controller.

The below procedure is the example setting to control two DVRs with two system controller.
From the setting like the below, Master controller can only control the Master DVR and Slave controller can only control the Slave DVR because the Keypad ID is different. Refer to the System Controller Connection.

NOTE:
Keypad ID- 1 means Master mode. (Default)
Keypad ID- 2, 3, 4, 5 means Slave mode.

Example Setting
Master DVR:
DVR ID – 1
Keypad ID – 1
Slave DVR:
DVR ID – 2
Keypad ID – 2
Slave System Controller:
Keypad ID – 2



● MASTER DVR SETTING

1. Press the “ESC” button.
The DISPLAY MENU will be displayed.

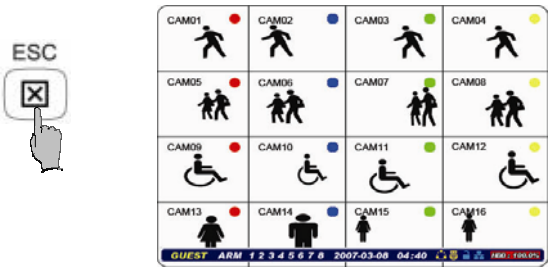
2. Move the cursor to “MAINTENACNE” and Press the “Enter” button.
The “Maintenance” menu will be displayed.

3. Move the cursor to “DVR ID” and Set the DVR Id as “1”.

4. Move the cursor to “Keypad ID” and Set the Keypad ID as “1”.
The “Maintenance” menu will be displayed.

5. Press the “ESC” button.
The DISPLAY MENU will be displayed.

6. Press the “ESC” button.
The live mode will be displayed.



MASTER/SLAVE KEYPAD

● SLAVE DVR SETTING

1. Press the “ESC” button.
The DISPLAY MENU will be displayed.

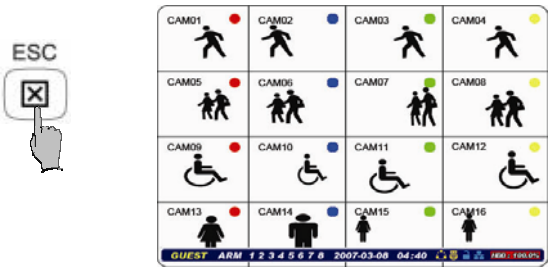
2. Move the cursor to “MAINTENACNE” and Press the “Enter” button.
The “Maintenance” menu will be displayed.

3. Move the cursor to “DVR ID” and Set the DVR Id as “2”.

4. Move the cursor to “Keypad ID” and Set the Keypad ID as “2”.
The “Maintenance” menu will be displayed.

5. Press the “ESC” button.
The DISPLAY MENU will be displayed.

6. Press the “ESC” button.
The live mode will be displayed.

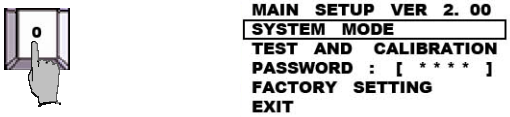


● SLAVE CONTROLLER SETTING

The below procedure is the explanation of changing the slave mode of PTX2000

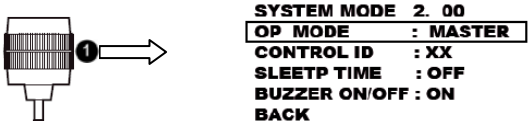
1. Hold the “Menu” button for 3 seconds.
The P/W input window will be displayed.

2. Input the P/W.
The below window will be displayed.

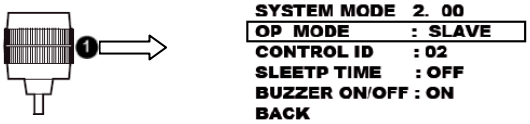


NOTE:
Default P/W is “0000”.

3. Move the joystick to “Right” direction.
The below window will be displayed

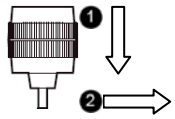


4. Move the joystick to “Right” direction.
The below window will be displayed



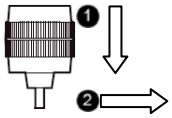
NOTE:
The controller ID is changed to “02” automatically. User can also select other controller ID like 3, 4, 5.

5 Move the cursor to “Back” using joystick and move the joystick to “Right” direction.
The below window will be displayed



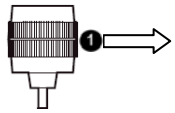
```
MAIN  SETUP  VER  2. 00
SYSTEM  MODE
TEST  AND  CALIBRATION
PASSWORD  :  [ * * * * ]
FACTORY  SETTING
EXIT
```

6 Move the cursor to “Exit” using joystick and move the joystick to “Right” direction.
The below window will be displayed



```
MAIN  SETUP  VER  2. 00
SAVE  AND  EXIT
EXIT
```

7 Move the joystick to “Right” direction.
Return to the “Live” mode.



```
DVR : 01          LIVE          SLAVE 2
CAM : 01 [X01]                  NX5016
PTZ : 01 [001]                  19.2Kbps
                                WTXA

DISPLAY SEARCH QSEARCH CASCADE CASCADE.F F.REC >>
```

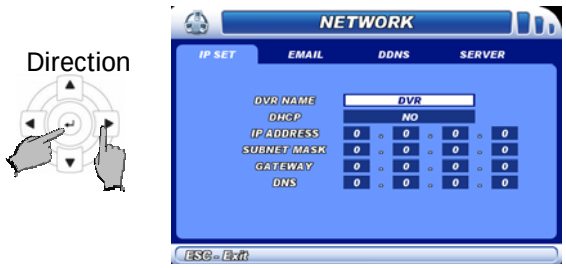
MASTER/SLAVE KEYPAD

■ Static IP Setting

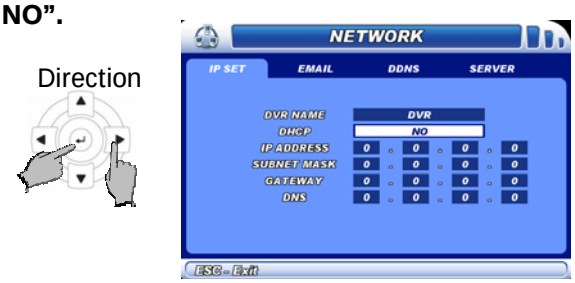
When connecting this unit to a network, check the IP ADDRESS, SUBNET MASK and GATEWAY settings with the LAN Network Administrator.

1. Press the “SETUP” button.
The SETUP MENU will be displayed.

2. Move the cursor to “NETWORK” and Press the “Enter” button.
The “Network” menu will be displayed.



3. Move the cursor to “DHCP” and Set as “NO”.



4. Move the cursor to “IP ADDRESS” and Input the IP Press address.

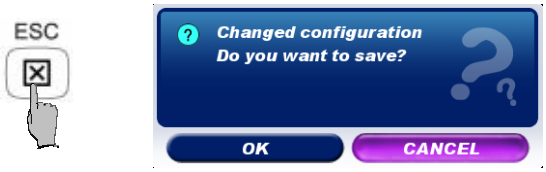
5. Move the cursor to “SUBNET MASK” and Input the SUBNET MASK.

6. Move the cursor to “GATEWAY” and Input the GATEWAY.

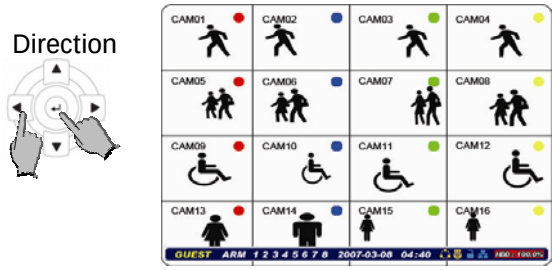
7. Move the cursor to “DNS” and Input the DNS.

8. Press the “ESC” button.
The SETUP MENU will be displayed.

9. Press the “ESC” button again.
Save and exit window will show up.



10. Move the cursor to “OK” and Press the “Enter” button.
The live mode will be displayed.

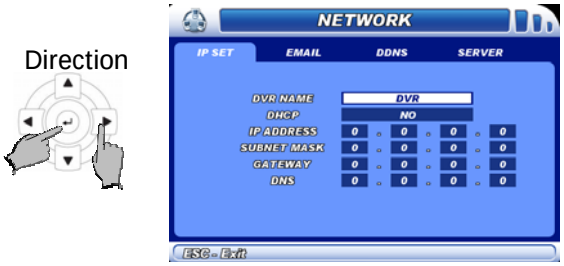


■ DHCP IP Setting

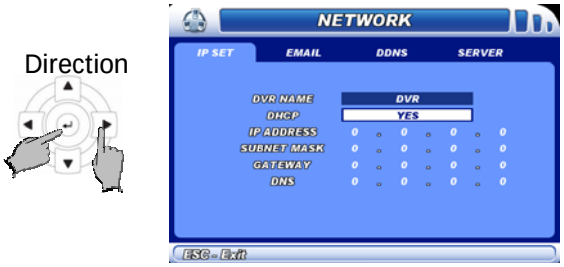
When connecting this unit to a network, check the IP ADDRESS, SUBNET MASK and GATEWAY settings with the LAN Network Administrator.

1. Press the “SETUP” button.
The SETUP MENU will be displayed.

2. Move the cursor to “NETWORK” and Press the “Enter” button.
The “Network” menu will be displayed.

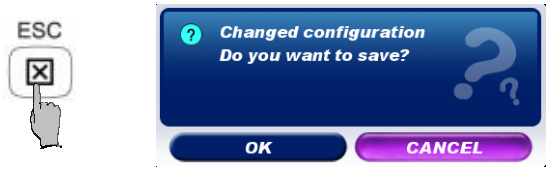


3. Move the cursor to “DHCP” and Set as “YES”.
The below window will be displayed.

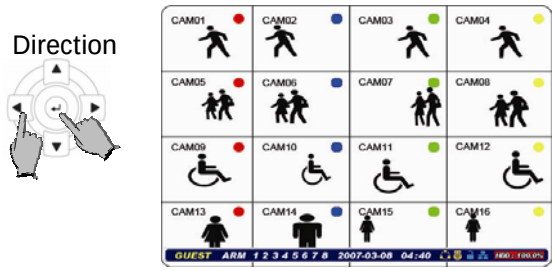


4. Press the “ESC” button.
The SETUP MENU will be displayed.

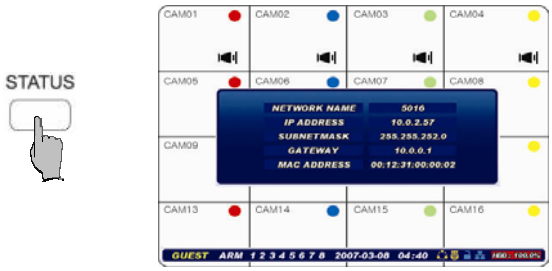
5. Press the “ESC” button again.
Save and exit window will show up.



6. Move the cursor to “OK” and Press the “Enter” button.
The live mode will be displayed.



7. Press the “Status” button.
Network information will be displayed.



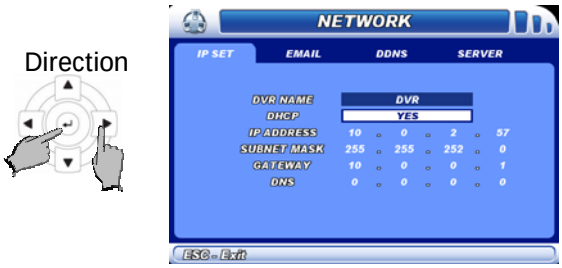
NOTE:
If you want to know more information for “Status”, Refer to the Operating Display.

■ DDNS Setting

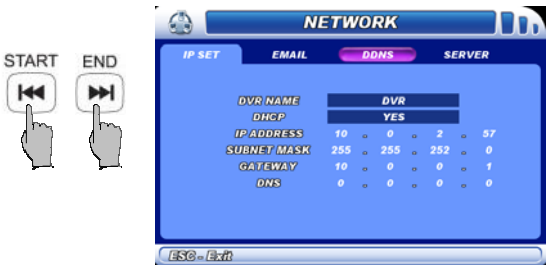
When connecting this unit to a network, check the IP ADDRESS, SUBNET MASK and GATEWAY settings with the LAN Network Administrator.

1. Press the “SETUP” button.
The SETUP MENU will be displayed.

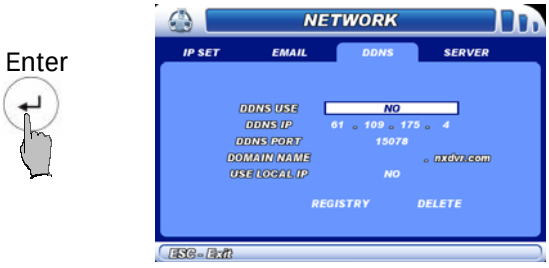
2. Move the cursor to “NETWORK” and Press the “Enter” button.
The “Network” menu will be displayed.



3. Move the cursor to “DDNS” using the “Start” or “End” button.

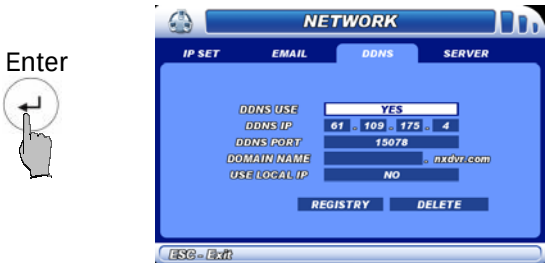


4. Press the “Enter” button.
The “DDNS” menu will be displayed.

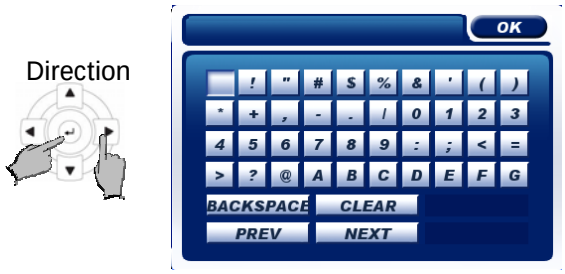


NOTE:
DDNS IP and **DDNS Port** is the default provided with DVR.

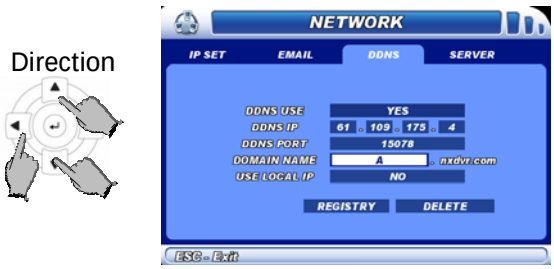
5. Press the “Enter” button and Set as “YES”.
The below window will be displayed.



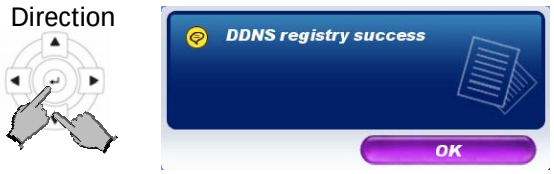
6. Move the cursor to “Domain Name” and Press the “Enter” button.
The Input window will be displayed.



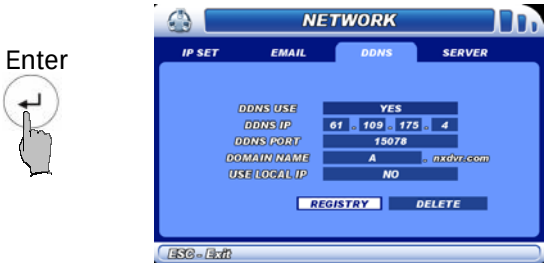
7. Set a domain name and Press the “OK”.
The below window will be displayed.



8. Move the cursor to “Registry” and Press the “Enter” button.
The below window will be displayed.



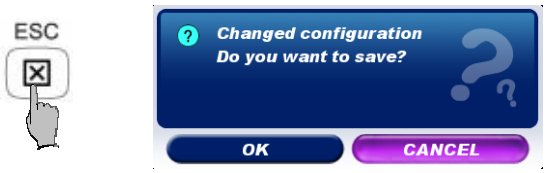
9. Press the “Enter” button.
The below window will be displayed.



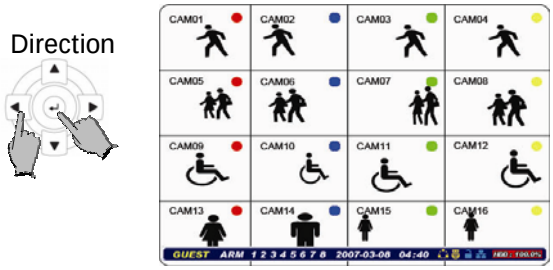
NOTE:
Set "**Use Local IP**" to "**YES**" when trying to connect a DVR using DDNS in the same local network like LAN.

10. Press the "ESC" button.
The SETUP MENU will be displayed.

11. Press the "ESC" button again.
Save and exit window will show up.



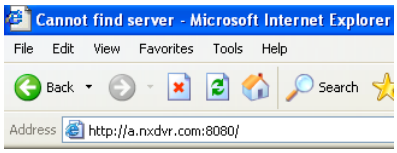
12. Move the cursor to "OK" and Press the "Enter" button.
The live mode will be displayed.



■ Connecting a DVR with Internet Explorer

1. Run the "Internet Explorer".

2. Type the domain name registered on DDNS setting.
If the domain name on DDNS is "A", type the address like the below.



3. Web Viewer will be installed on your PC.

4. Input the P/W and Press the "Log In".

DDNS SETTING

E-MAIL SETTING

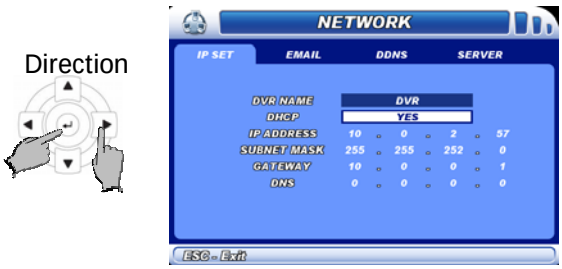
To use an e-mail notification, the DVR must be connected to a local area network (LAN) that maintains an SMTP mail server. The network must also be connected to either an intranet or the Internet depending on the location of the e-mail accounts to which you want to send notifications. Consult your network administrator for information on configuring e-mail notification on your local network.

The below procedure is the example setting of the E-Mail.

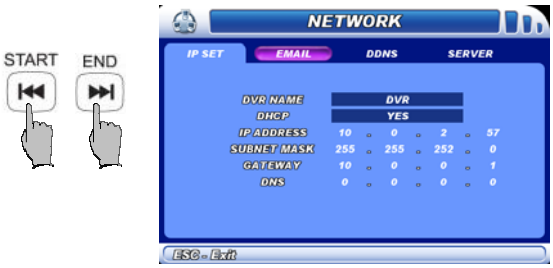
Example Setting
System Notify – Yes
Event Mail Send – Yes
E-Mail – order@picasoic.com,
SMTP Server – mail.picasoic.com

1. Press the "SETUP" button.
The SETUP MENU will be displayed.

2. Move the cursor to "NETWORK" and Press the "Enter" button.
The "Network" menu will be displayed.



3. Move the cursor to "E-Mail" using the "Start" or "End" button.

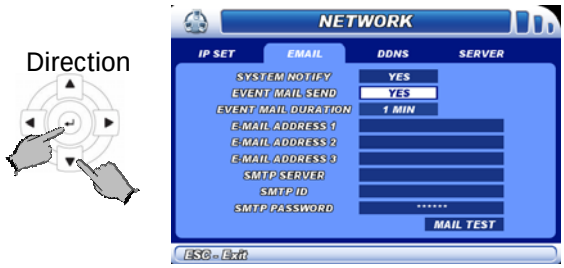


4. Press the "Enter" button.
The "E-Mail" menu will be displayed.

5. Press the "Enter" and Set the "System Notify" as "YES".

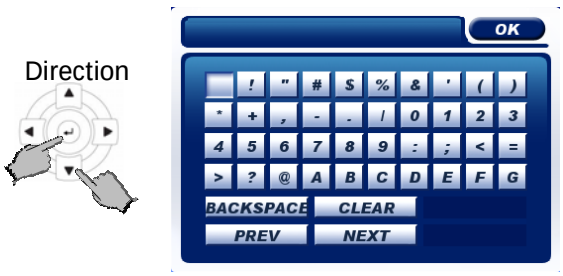
NOTE:
System Notify – Send an e-mail when fan failure or DVR restarting.

6. Move the cursor to "Event Mail Send" and Set it as "YES".



NOTE:
Event Mail Send – Send an e-mail when motion or sensor is triggered.

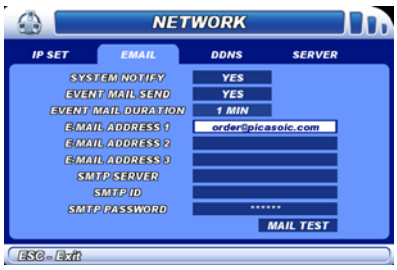
7. Move the cursor to "E- Mail Address 1" and Press the "Enter" button.
The input window will be displayed.



E-MAIL SETTING

8. Set the address as “order@picasoic.com” and Press the “OK”.
The below window will be displayed.

Direction

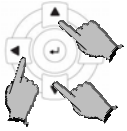


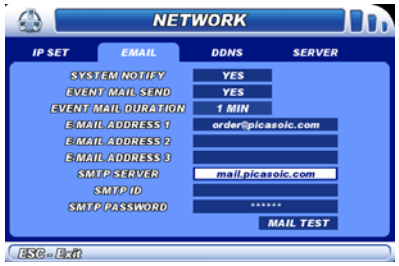
9. Move the cursor to “SMTP Server” and Press the “Enter” button.
The input window will be displayed.

Direction

10. Set the server as “mail.picasoic.com” and Press the “OK”.
The below window will be displayed.

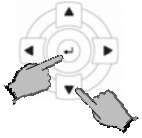
Direction

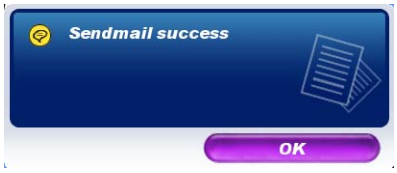




11. Move the cursor to “Mail Test” and Press the “Enter” button.
The input window will be displayed.

Direction





12. Press the “Enter” button.
The below window will be displayed.

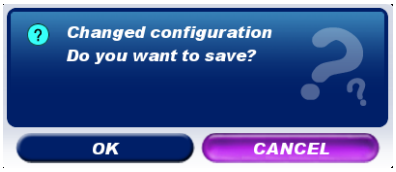
Enter

13. Press the “ESC” button.
The SETUP MENU will be displayed.

ESC

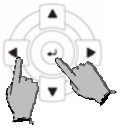
14. Press the “ESC” button again.
Save and exit window will show up.

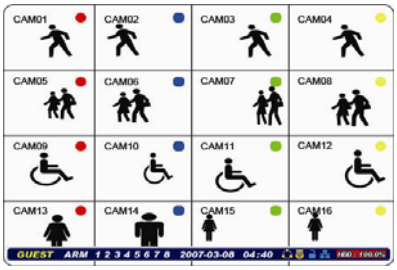
ESC



15. Move the cursor to “OK” and Press the “Enter” button.
The live mode will be displayed.

Direction





E-MAIL SETTING

USER P/W SETTING

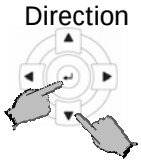
The below procedure is the example setting of the user password and authority.

Example Setting
User1, P/W change,
Permission – Search,
Hidden – Camera No.6, 7

1. Press the "SETUP" button.
The SETUP MENU will be displayed.

2. Move the cursor to "USER" and Press the "Enter" button.
The "User" menu will be displayed.

3. Move the cursor to "Password" of USER1 and Press the "Enter" button.
The below window will displayed.

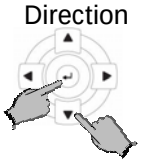


4. Input the "P/W" and Press the "Enter" button.
The below window will be displayed.

5. Input the "P/W" again and Press the "Enter" button.
The below window will be displayed.

6. Move the cursor to "Permission" of USER1 and Press the "Enter" button.
The below window will displayed.

7. Select the "Search" and Press the "Enter" button.
The below window will be displayed.



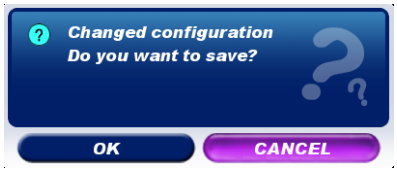
8. Move the cursor to "Hidden" of USER1 and Press the "Enter" button.
The below window will displayed.

USER P/W SETTING

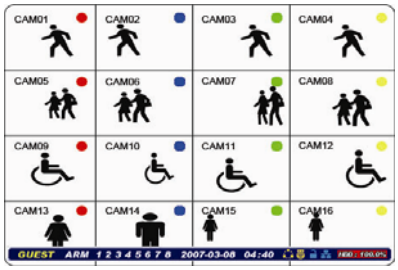
9. Select the camera “6, 7” and Press the “ESC” button.
The below window will be displayed.

10. Press the “ESC” button.
The SETUP MENU will be displayed.

11. Press the “ESC” button again.
Save and exit window will show up.



12. Move the cursor to “OK” and Press the “Enter” button.
The live mode will be displayed.



NOTE:
If you want to know further information about Log In/Out, Refer to the Log In/Out.

■ NX 5009/5016/6016

Lineup			
Model	5009	5016	6016
Video (CH)	9	16	16
Audio (CH)	4	4	4
Recording (fps)	120	120	240
Sensor/Alarm	9 / 8	16 / 16	16 / 16

Video	
Standard	NTSC / PAL
Input	0.5 ~ 2.0Vpp ±10% @75Ω Unbalanced
Loop Out	Automatic Termination
Spot TV output	1 CH, Gain < ±1dB @75Ω Unbalanced
Quad TV output	1 CH, 1.0Vpp±10% @75Ω Unbalanced
Cascade input	1 CH, 75Ω Unbalanced
Cascade output	1 CH, Gain < ±1dB @75Ω Unbalanced
Audio	
Line Input	Mono, < 1.7Vpp @25kΩ Unbalanced
Line Output	1 CH, Live or Playback
MIC Input	1 CH
Display	
Speed	Live (30 frame/ch)
Screen split	1 / 4 / 9 / 16 Screens
Rotate control	1 seconds ~ 10 minutes
Recording	
Video codec	Hardware MPEG-4 (Picaso Patented)
Audio codec	G.721, 8kHz Sampling Rate
Resolution	NTSC : 352 x 240 / 704 x 240 / 704 x 480 PAL : 352 x 280 / 704 x 280 / 704 x 560
Size/frame	1 ~ 3 kB @352 x 240 / 352 x 280 2 ~ 6 kB @704 x 240 / 704 x 280 4 ~ 12 kB @704 x 480 / 704 x 560
Recording mode	Continuous / Schedule / Motion / Sensor
Pre Alarm	96 frmae (0 ~ 96 seconds)
Post Alarm	0 ~ 300 seconds
Search & Playback	
Search Method	Date / Time / Motion / Sensor
Date / Time Search Event Search	Selectable on Map & Calendar

Multiple Remote Surveillance	
Support	CMS / Web
Live	Appx. 16 CH full motion transmission
Search	Appx. 2 clients accessable)
Backup	
Still image	PNG
Motion picture	AVI (Remote S/W)
Storage support	CD/DVD, HDD
System management	
Log Book	Power failure, Errors, Logins, Power On/Off, Watchdog, Upgrade, Network Connection
Watchdog	Two individual watchdogs (H/W & S/W)
Recovery	Automatic reboot by watchdog Automatic database recovery
Motion Detection	
Sensitivity Control	14 Levels
Cell Density	8 x 8
Alarm (OPTION)	
Sensor input	NC or NO Non-isolated HCMOS input, GND common 4.7k Ω pulled up to +5V.
Alarm output	NC or No Isolated Relay Contact Output, Shared Common

Storage		
Internal		4 x EIDE (Default – 0)
Optical		1 x EIDE CD-RW or 1 x DVD-RW
Removal		1 x EIDE HDD (Replacement of optical device)
Others		IEEE1394 storage devices
I/O Ports		
Video	Video In	9 / 16 x BNC
	Spot TV out	1 x BNC
	Loop out	9 / 16 x BNC
	Quad TV out	2 x BNC
	Cascade I/O	1 x BNC / 1x BNC
Audio	Audio In	4 x RCA (mono)
	Audio Out	1 x 3.5mm Stereo Jack (mono)
Alarm (Option)	Sensor In	10 pin terminal block x 2 (include 2 x GND per terminal block)
	Alarm Out	10 pin terminal block x 1 (include 2 x common per terminal block)
System	VGA	1 x DB15
	Audio	3 x 3.5mm stereo Jack (Line In / Line Out / MIC In)
	S-Video	1 x 4 Pin Mini DIN
	Cascade In/Out	2 x RJ11 (Command Signal)
	LAN	1 x RJ45 (10/100Mbps)
	PTZ	RS-485
	RS-232C	1 x DB9
	IEEE1394a	1 x Mini 4 Pin
	USB 1.1	2 x Rear, 1 x Front
	Video Signal Switch	1 x NTSC / PAL Select
Electrical		
AC Input		100 ~ 240VAC/50 ~ 60Hz, Free Voltage
Power Consumption		< 90Watt (180VA)
Environmental		
Operating Temp.		+5 ~ +40℃
Storage Temp.		-5 ~ +60℃
Humidity		30 ~ 80%RH (non-condensing)
Physical		
Color		Black
Dimension (WxHxD)		439 x 88 x 435 [mm]
Weight (Net)		Appx. 20kg (4x HDD, 1x DVD-R/W)
Accessories		
AC Power Cord		CEE7 Standard VII x 1 (250V/10A)
Rack mounting kit		2 x Handle, 6 x Screw
Options		
Opt 01. HDD Rack		3.5" Removal HDD Rack Replacement of CD-R/W
Opt 02. DVD-R/W		Replacement of CD-R/W

NOTE:

Video Output

• PAL Video Signal

We recommend to use the LCD monitor that supports 720 X576, 50Hz.

• NTSC Video Signal

We recommend to use the LCD monitor that supports 720X480, 60Hz

SPECIFICATION

■ NX 5004

General	
Operating system	Linux
CPU	IBM Power PC 266MHz
Memory	64MB (SDRAM 133MHz)
Video	
Standard	NTSC / PAL
Camera input	4 Channel, BNC 1.0Vpp ±10% @75Ω
Loop output	4 Channel , BNC, Auto Termination
Spot TV output	1 Port, BNC, Switched Screen
Main TV output	1 Port, BNC, Multi Screen 1.0Vpp ±10% @75Ω
Audio	
Line input	4 Channel, RCA -4 ~ 0dBm (0.5~1.0Vpp), >20㏀
Line output	1 Channel , Ø3.5mm Stereo Jack
Display	
Resolution (Pixels)	NTSC : 704 x 480 PAL : 704 x 576
Speed	Live (30 frame/ch)
Screen split	1 / 4 Screens
Rotate control	1 Sec ~ 10 Min
Image control	Contrast / Brightness / Saturation / Hue
Recording	
Resolution (Pixels)	NTSC : 704 x 480/704x240/352x240 PAL : 704 x 576/704x288/352x288
Speed	NTSC : 4 ~ 120 fps PAL : 4 ~ 100 fps
Image size	352x240 : 1 ~ 4 kb 704x240 : 2 ~ 7 kb 704x480 : 5 ~ 14kb
Video codec	MPEG-IV
Audio codec	ADPCM
Recording mode	Manual, Schedule. Motion, Sensor, Holiday
Pre-alarm	1 Block GOP
Alarm duration	10 Min
Playback	
Speed	NTSC : 4 ~ 120fps PAL : 4 ~ 100fps
Search Criteria	Date, time, Camera number, event
Backup	
Still image	USB memory stick(Png)
Storage support	CD-R/W, DVD-R/W, HDD , IEEE1394
Networking	
Support	CTMS(Max 120Fps) , Pan/Tilt Control
System management	
Password Protection	
Log File	All errors, logins
Watchdog	Two individual watchdogs (H/W & S/W)
Recovery	Automatic database recovery

Alarm & Motion detection	
Sensor input	4 Ports / NC or NO, Screwless Terminal block (TTL level compatible input)
Relay output	4 Ports / NC or NO, Screwless Terminal block
Motion detection	64 areas for each cameras
Storage	
Built-in	Max. 1 IDE
Internal Rack	CD-R/W (Default) DVD-R/W (Option)
Interfaces	
VGA	VGA output for VGA/CRT monitor
USB	2x on rear, 1x on front
LAN	10/100Base-T, RJ-45
RS-232	D-SUB JACK
RS-422/RS-485	1 Ports (4 Pin Terminal block)
Electrical	
DC Input	DC12 Voltage Input(5A)

Environmental	
Operating Temp.	+5 ~ +40℃
Storage Temp.	-5 ~ +60℃
Humidity	30 ~ 80%RH (non-condensing)
Physical	
Dimension (WxHxD)	360 x 70 x 334
Weight	6.8kg(1xHDD,1xCD-R/W)

Accessories	
Manual	User/Install Manual
Power	Switching Adaptor(DC12V Input)
Options	
Opt 01.	DVD-R/W

NOTE:

Video Output

• PAL Video Signal

We recommend to use the LCD monitor that supports 720 X576, 50Hz.

• NTSC Video Signal

We recommend to use the LCD monitor that supports 720X480, 60Hz

SPECIFICATION

■ CTMS Environment

1. CTMS S/W.
It is possible to monitor various DVR servers through network. Moreover, it is also possible to change the DVR setting, Search and PTZ control.

2. System Requirement.
Pentium IV 2.4GHz or above
512MB Memory
VGA card (32 Bit True Color / 1280*1024)
10/100M LAN Card
16Bit Sound Card
HDD 80MB Free Space
CTMS Lock
1280 * 1024 resolution-supporting monitor
Direct X 8.1
DAO (Data Access Objects 3.5)

3. O/S.
Windows 2000
Windows XP

■ CTMS Installation

1. Insert the CTMS Program CD into the CD-ROM.

2. Install the DirectX 8.1 or above.

3. Reboot the system after installation.

4. Install the DAO (Data Access Objects 3.5).

5. If the installation is completed, check if the CTMS icon is created on the desktop.

CTMS
CTMS

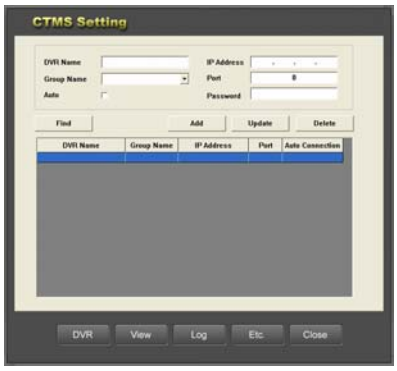
1. Run the "CTMS".
The P/W input window will be displayed.

2. Input the "P/W" and Press the "OK".
CTMS will be displayed.

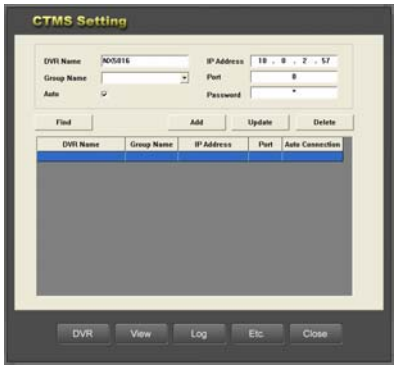
NOTE:
The default P/W is "0".

3. Click the "Environment Setup".
The P/W input window will be displayed.

4. Input the "P/W" and Press the "OK".
The "DVR" window will be displayed.



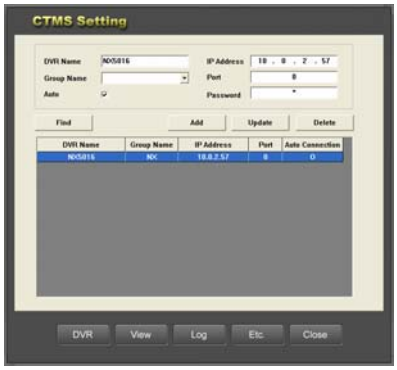
7. Input the "DVR Name", "IP Address", "Port No" and "Password".



NOTE:
Auto – Connect automatically when network is disconnected.
Find – Show all DVR list that is connected into the same network group like LAN.

8. Click the "Add".
The below window will be displayed.

9. Click the "OK".
The added DVR will be shown into the list.



10. Click the "Close".
Show the added DVR list.

11. Move the cursor on DVR name and Click the right mouse button.

12. Click the "Connect"
The live image will be displayed.

13. Drag & Drop the "DVR Name" into the viewing window.
Show "Live Image" into the Display window.

CTMS CONNECTION

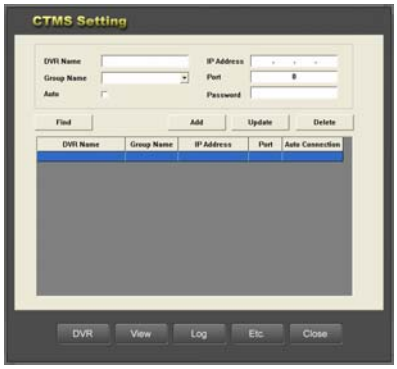
1024*768 RESOLUTION

CTMS requires the minimum resolution of 1280*1024.

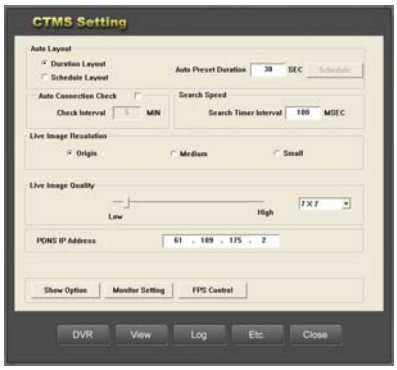
NOTE:
The below instructions is for the computer that only supports 1024*768.

1. Click the "Environment Setup".
The P/W input window will be displayed.

2. Input the "P/W" and Press the "OK".
The "DVR" window will be displayed.



3. Click the "View".
The "View" window will be displayed.



4. Click the "Monitor Setting".
The "Monitor Layout" window will be displayed.

NOTE:
Display Properties – Set the display resolution.

5. Tick the "1024*768" and Press the "OK".
The below window will be displayed.

6. Press the "OK"
CTMS will restart.

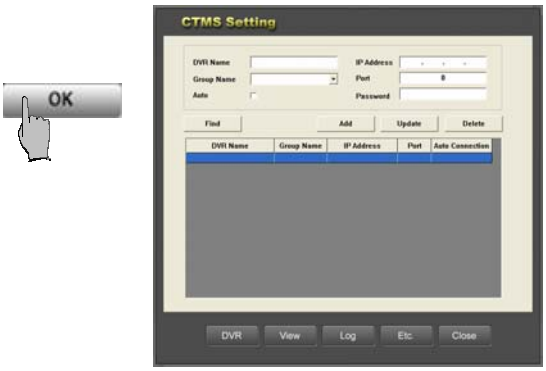
1024*768 RESOLUTION

You should change the password immediately after logging in to the software for the first time. Follow the instructions below to change the NX DVR login password.

■ Password Change

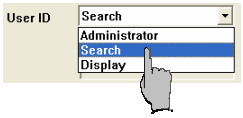
1. Click the “Environment Setup”.
The P/W input window will be displayed.

2. Input the “P/W” and Press the “OK”.
The “DVR” window will be displayed.



3. Click the “Etc”.
The “Etc” window will be displayed.

4. Select the “User ID”.



5. Input the old P/W.

6. Input the new P/W.

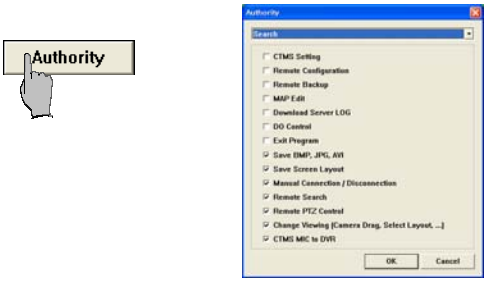
7. Confirm the new P/W.

8. Click the “Save”.
The below window will be displayed.

9. Press the “OK”.

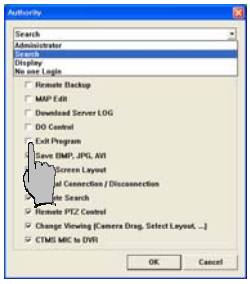
■ Authority Change

10. Click the “Authority”.
The “Authority” window will be displayed.



11. Select the “user”.

12. Select the functions for the selected user.

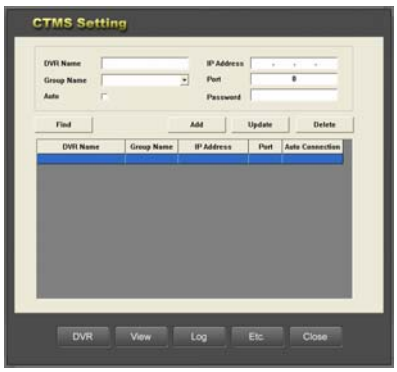


13. Press the “OK”.

■ Save Configuration

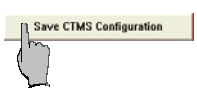
1. Click the “Environment Setup”.
The P/W input window will be displayed.

2. Input the “P/W” and Press the “OK”.
The “DVR” window will be displayed.



3. Click the “Etc”.
The “Etc” window will be displayed.

4. Click the “Save CTMS Configuration”.
Window explorer will be displayed.



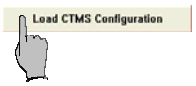
5. Select the directory.

6. Input the file name and Press the “Save”.
The below window will be displayed.

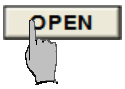
7. Press the “OK”.

■ Load Configuration

4. Click the “Save CTMS Configuration”.
Window explorer will be displayed.



5. Select the file name and Press the “Save”.
The below window will be displayed.

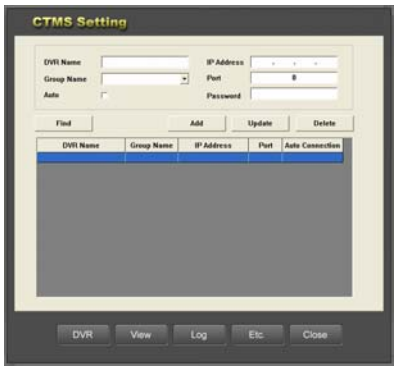


6. Press the “OK”.
CTMS will shut down.

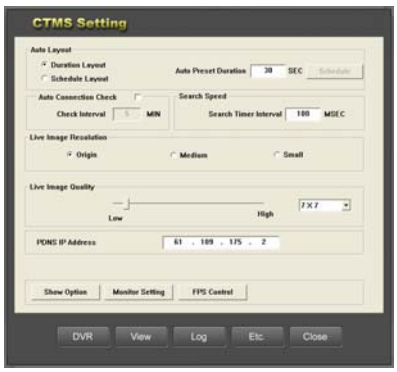
NETWORK SPEED

1. Click the “Environment Setup”.
The P/W input window will be displayed.

2. Input the “P/W” and Press the “OK”.
The “DVR” window will be displayed.

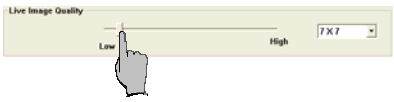


3. Click the “View”.
The “View” window will be displayed.



4. Control the “Live Image Resolution”.

5. Control the “Live Image Quality”.



NOTE:
Live Image Resolution, **Live Image Quality** only works with NX5009, 5016, not NX5004, 6016.

6. Click the “FPS Control”.
The “FPS Control” window will be displayed.

7. Adjust the speed according to the CPU performance of the CTMS.

NETWORK SPEED

WARRANTY

MODEL	
SERIAL NO.	
DATE OF PURCHASE	
WARRANTY PERIOD	ONE YEAR FROM DATE OF PURCHASE
PLACE OF PURCHASE	

WARRANTY

1. The following warranty service applies to all factory defects that occur during normal use of this equipment.

2. Warranty services are provided in accordance to the cause of damage as described below

Cause of Damage	Service	
	Within Warranty Period	After Warranty Period
Factory defect during normal use	Free Repair	Repair Service Charge Apply
User misuse, misapplication or accidents	Repair Service Charge Apply	
Unauthorized alterations and repair service		
Unavoidable situations such as fire and earthquake		
User abuse or tempering		
Natural wear of minor parts		

3. For any product related service, contact the local distributor.